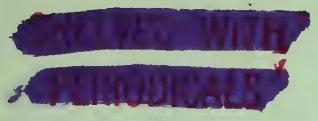

DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

Oil and Gas Conservation Division

Thomas L. Judge, Governor

ANNUAL REVIEW FOR THE YEAR 1972

Relating to

OIL AND GAS

Volume 16

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Thomas L. Judge, Governor

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Annual Review for the Year 1972
Volume 16

INTRODUCTION

Oil production in Montana during 1972 totaled 33,904,139 barrels. This is less than a two per cent decrease in production as compared to 1971. Several factors contributed to the maintaining of production in 1972 at essentially the 1971 level.

A. Secondary recovery efforts at the Bell Creek Field during 1972 showed a generally good response and production during the year increased by nearly 4,000 barrels per day for the entire field.

B. Production from the central Montana Jim Coulee Field discovered in 1971 increased to 1,400 barrels per day.

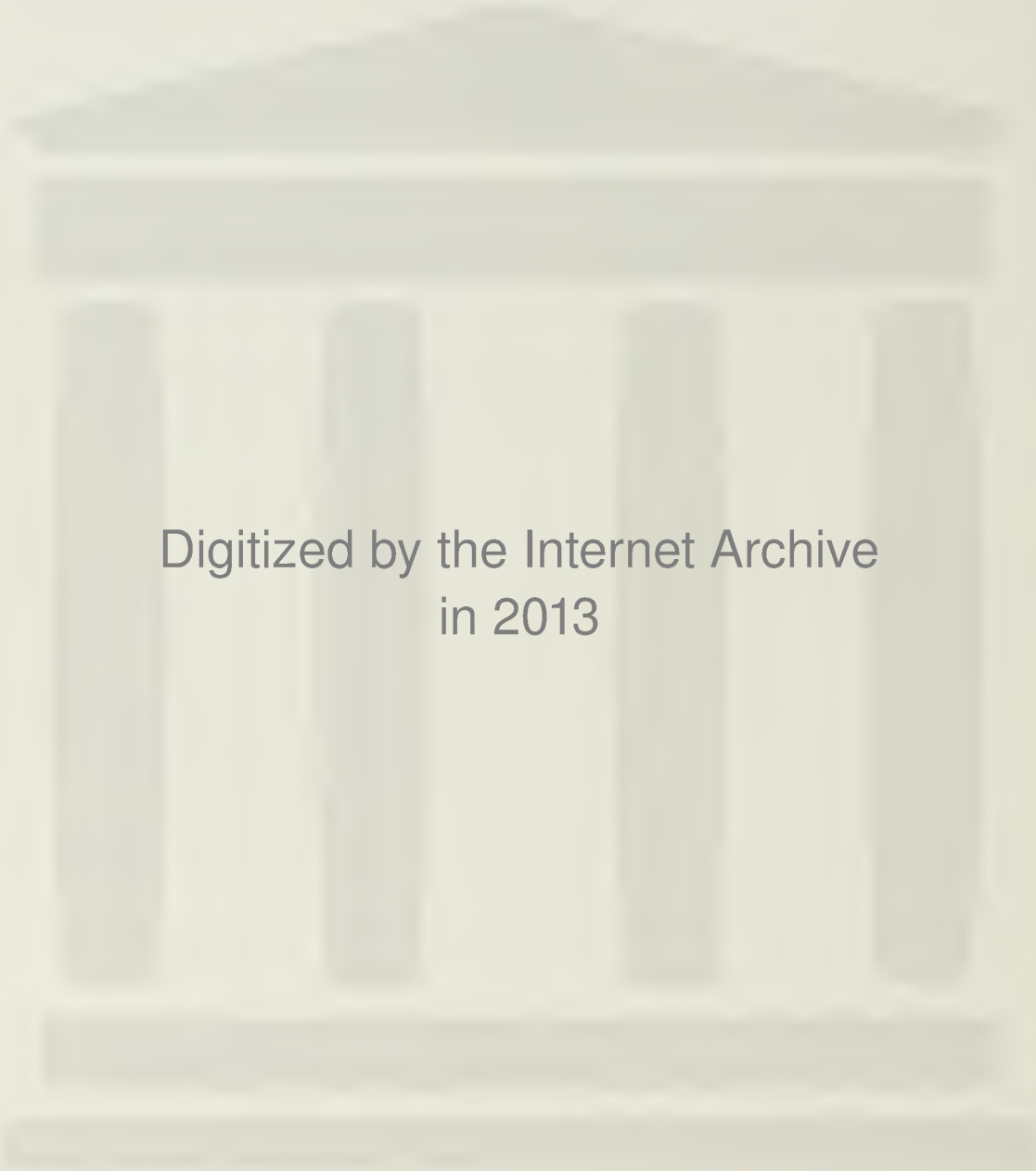
C. The Nohly, Chelsea Creek, Second Creek and Raymond fields, all discovered in the Williston Basin area during 1972, added 1,400 barrels per day to 1972 production. The most significant of these fields was Raymond with production found in four zones, Nisku, Duperow, Winnipegosis and Red River.

Extensions to the Jim Coulee, Keg Coulee and Sumatra fields in central Montana indicated separate new productive pools from the Tyler formation which could become important during 1973.

Five new areas were unitized for secondary oil recovery and it is estimated that during 1972 one-third of Montana's production resulted from secondary recovery programs.

Natural gas produced in Montana during 1972 totaled 34,906,596 MCF. This is a decrease from 1971 due to greatly reduced production from the Cut Bank and Reagan fields in Glacier and Toole counties. However during 1972 two large portions of the Tiger Ridge Gas Field were unitized and the field went on stream during November. Production at Tiger Ridge for December, 1972, amounted to 1,895,411 MCF indicating total gas production in Montana during 1973 will show a substantial increase.

Leasing of lands for oil and gas exploration increased during 1972 and by the year's end most of the potentially productive areas were almost solidly held by the major companies plus many independents that were looking at Montana for the first time. Multiple well programs were being discussed by several operators and the outlook for 1973 appeared bright for an expanded State-wide exploration effort.

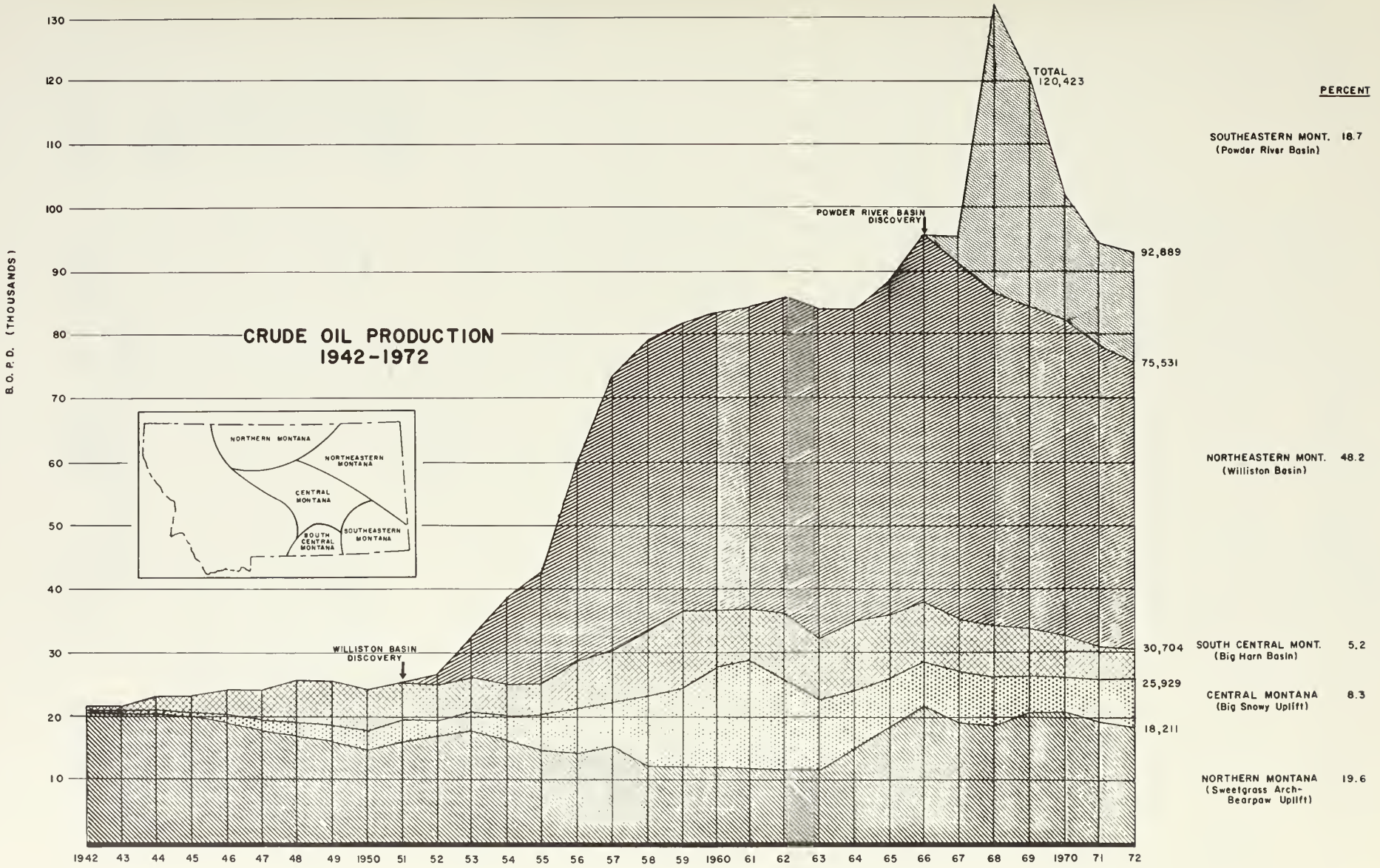


FIVE YEAR SUMMARY

	1968	1969	1970	1971	1972
Production, Northern Montana—Bbls.	6,883,493	7,557,966	7,680,831	7,292,476	6,646,908
South Central—Bbls.	2,885,272	2,739,346	2,329,187	2,028,304	1,742,749
Central—Bbls.	2,728,357	2,011,445	1,915,273	2,274,124	2,817,045
Williston Basin—Bbls.	19,390,652	18,396,618	18,110,147	17,042,703	16,361,771
Powder River Basin—Bbls.	16,572,472	13,248,737	7,843,259	5,961,116	6,335,666
TOTAL	48,460,246	43,954,112	37,878,697	34,598,723	33,904,139
No. of Producing Wells, Northern Montana	1,898	1,827	1,806	1,768	1,856
South Central	99	108	92	96	83
Central	282	244	200	212	224
Williston Basin	784	759	743	748	706
Powder River Basin	328	397	371	321	265
TOTAL	3,391	3,335	3,212	3,145	3,134
Average Daily Production/Well—BOPD,					
Northern Montana	9.9	11.3	11.6	11.3	9.8
South Central	79.6	69.5	69.3	57.9	57.4
Central	26.4	22.6	26.2	29.4	34.4
Williston Basin	67.6	66.4	66.8	62.4	63.3
Powder River Basin	138.0	91.4	57.9	50.9	65.3
STATE AVERAGE	39.0	36.1	32.3	30.1	29.6
Development Wells Drilled, Oil Wells	300	171	60	49	79
Gas Wells	14	44	30	36	97
Dry Holes	89	105	63	34	87
TOTAL	403	320	153	119	263
Exploratory Wells Drilled, Oil Wells	15	15	12	3	7
Gas Wells	13	5	11	22	19
Dry Holes	509	466	272	323	435
TOTAL	537	486	295	348	461
TOTAL WELLS DRILLED	940	806	488	467	724
TOTAL FOOTAGE DRILLED	4,547,691	3,682,758	1,969,583	1,735,222	2,300,075
AVERAGE DEPTH OF ALL WELLS	4,839	4,569	4,396	3,716	3,177

SUMMARY OF DRILLING BY COUNTIES—1972
STATE OF MONTANA

County	Wildcats			Development			Total Wells	Footage Drilled	Average Depth
	Dry	Oil	Gas	Dry	Oil	Gas			
Big Horn	5	0	0	0	0	0	5	24,402	4,880
Blaine	95	1	6	15	1	59	177	310,747	1,755
Carbon	6	0	0	0	0	1	7	41,000	5,857
Carter	9	0	0	0	1	0	10	29,642	2,964
Cascade	3	0	0	0	0	0	3	8,002	2,667
Chouteau	36	0	3	0	0	7	46	88,556	1,925
Custer	11	0	0	3	0	3	17	56,241	3,308
Daniels	1	0	0	0	0	0	1	7,411	7,411
Dawson	3	1	0	0	0	0	4	39,475	9,856
Fallon	6	0	0	0	1	0	7	39,341	5,620
Fergus	24	0	2	0	0	0	26	51,426	1,978
Gallatin	1	0	0	0	0	0	1	7,153	7,153
Garfield	2	0	0	0	0	0	2	12,966	6,483
Glacier	2	0	0	6	27	4	39	120,832	3,098
Golden Valley	4	0	0	0	0	0	4	11,916	2,979
Hill	73	0	7	25	0	18	123	207,740	1,688
Liberty	27	0	0	4	1	0	32	101,355	3,167
McCone	13	0	0	8	3	0	24	156,429	6,518
Musselshell	13	0	0	9	17	0	39	157,356	4,035
Petroleum	1	0	0	0	0	0	1	2,144	2,144
Phillips	9	0	0	0	0	0	9	18,365	2,040
Pondera	8	0	1	1	4	0	14	35,139	2,509
Powder River	7	0	0	3	1	1	12	68,641	5,720
Richland	4	2	0	0	4	0	10	113,910	11,391
Roosevelt	9	1	0	1	3	0	14	124,489	8,892
Rosebud	16	0	0	4	8	0	28	133,286	4,760
Sheridan	11	1	0	5	4	0	21	187,176	8,913
Stillwater	1	0	0	1	0	0	2	7,412	3,706
Teton	4	0	0	0	0	0	4	9,370	2,342
Toole	18	1	0	2	4	4	29	66,534	2,294
Valley	7	0	0	0	0	0	7	28,428	4,004
Wheatland	1	0	0	0	0	0	1	5,028	5,028
Wibaux	2	0	0	0	0	0	2	18,900	9,450
Yellowstone	3	0	0	0	0	0	3	9,263	3,087
TOTALS	435	7	19	87	79	97	724	2,300,075	3,177


CRUDE OIL PRODUCTION
1942-1972
B.O.P.D. (THOUSANDS)
130
120
110
100
90
80
70
60
50
40
30
20
10
1942
43
44
45
46
47
48
49
1950
51
52
53
54
55
56
57
58
59
1960
61
62
63
64
65
66
67
68
69
1970
71
72
TOTAL
120,423
POWDER RIVER BASIN
DISCOVERY
WILLISTON BASIN
DISCOVERY
92,889
75,531
30,704
25,929
18,211
NORTHERN MONTANA
NORTHEASTERN
MONTANA
CENTRAL
MONTANA
SOUTH
CENTRAL
MONTANA
SOUTHEASTERN
MONTANA
PERCENT
SOUTHEASTERN MONT. 18.7
(Powder River Basin)
NORTHEASTERN MONT. 48.2
(Williston Basin)
SOUTH CENTRAL MONT. 5.2
(Big Horn Basin)
CENTRAL MONTANA 8.3
(Big Snowy Uplift)
NORTHERN MONTANA 19.6
(Sweetgrass Arch-
Bearpaw Uplift)

GAS PRODUCTION DATA—1972

Field	County	Producing Formations	1972 Production M.C.F.
Bell Creek*	Powder River	Muddy	838,373
Big Coulee	Golden Valley & Stillwater	Lakota & Morrison	1,215,817
Blackjack	Liberty	Sunburst & Swift	604,773
Bowdoin	Phillips & Valley	Bowdoin & Phillips	2,624,413
Bowes	Blaine	Eagle	280,333
Cabin Creek*	Fallon	Interlake & Red River	1,074,441
Cedar Creek	Fallon	Judith River & Eagle	9,708,933
Cut Bank & Reagan	Glacier & Toole	Cut Bank, Madison	4,068,780
Dry Creek	Carbon	Eagle & Frontier	412,539
Elk Basin*	Carbon	Tensleep	476,402
Flat Coulee	Liberty	Blackleaf & Swift	119,827
Gold Butte	Toole	Bow Island	8,785
Grandview	Liberty	Bow Island & Madison	243,537
Hardin	Big Horn	Frontier	21,120
Keith Block	Liberty	Bow Island, Sawtooth	1,130,642
Kevin Sunburst	Toole	Sunburst & Sun River	293,157
Lake Basin	Stillwater	Frontier & Eagle	544,026
Liscom Creek	Custer	Shannon	19,058
Middle Butte	Toole	Blackleaf	21,059
Mt. Lilly	Liberty	Madison	298,038
Pine*	Dawson, Prairie, Fallon & Wibaux	Interlake & Red River	503,105
Plevna	Fallon	Judith River	48,490
South Devon	Toole	Bow Island	240,684
Tiger Ridge	Blaine & Hill	Judith River & Eagle	5,104,476
Trail Creek	Liberty & Toole	Sunburst	122,892
Utopia	Liberty	Ellis, Sawtooth, Madison	420,198
Whitlash	Liberty	Bow Island, Kootenai & Swift	664,491
West Butte	Toole	Sawtooth, Madison	590,011
Miscellaneous**	Various	Various	3,208,196
		TOTAL ALL FIELDS	34,906,596

*Associated Gas.

**Brorson, Tule Creek, Fairview Areas Produced Associated Gas. Devon and Fred & George Creek included under Miscellaneous.

REFINING—1972

	Year 1972 Total Bbls.
Big West Oil Company	1,162,981
Continental Oil Company	17,153,998
Diamond Asphalt Company	143,728
Farmers Union Central Exchange, Inc.	10,556,260
Humble Oil & Refining Company	15,375,650
Jet Fuel Refinery	19,202
Phillips Petroleum Company	2,119,510
Spruce Oil Company	764,744
Westco Refining Company	1,168,648
	48,464,721

Refining Five Year Comparison

1968	1969	1970	1971	1972
40,951,393	40,437,537	42,330,220	44,996,860	48,464,721

SUMMARY OF SECONDARY RECOVERY PROJECTS — JANUARY 1, 1973

Field, Formation	Operator	Type of Project	Injection Pattern	Date injections Commenced	Cumulative injections 1000's Bbls. or MMCF	Dec. 1972 Avg. Daily Inj. Rate Bbls. or MCF	No. of Injection Wells	Source of Injection Media and Remarks
Ash Creek, Shannon	McDermott	Waterflood	Peripheral	10-15-64	821	102	2	Parkman
Bell Creek, Unit "A", Muddy	Gary	Waterflood	Peripheral	7- 1-70	28,934	36,512	26	Madison
Bell Creek, Unit "B", Muddy	Gary	Waterflood	Peripheral	11- 1-70	7,014	11,071	11	Madison
Bell Creek, Ranch Creek, Muddy	Gary	Waterflood	Peripheral	7- 1-71	7,718	10,379	14	Madison
Bell Creek, Unit "C", Muddy	Gary	Waterflood	Peripheral	7- 1-71	1,782	7,213	6	Madison
Bell Creek, Unit "D", Muddy	Gary	Waterflood	Peripheral	8-72	1,904	13,553	11	Madison
Bell Creek, Unit "E", Muddy	Gary	Waterflood	Peripheral	8-72	1,193	7,686	12	Madison
Big Wall, Tyler "B"	Texaco, Inc.	Waterflood	Peripheral	8-20-66	11,732	3,477	2	Produced, Amsden & Tyler
Bowes, Sawtooth	Texaco, Inc.	Waterflood	Random	5-23-61	3,850	384	3	Madison
Cabin Creek, Silluro-Ordovician	Shell	Waterflood	Semi-Peripheral	6-12-59	97,637	5,393	30	Produced and Fox Hills
Cat Creek, Swift	Moss	Waterflood	Semi-Peripheral	7-30-70	74	80	2	Third Cat Creek
Cat Creek, 1st & 2nd CC (Unit 1)	Farmers Union	Waterflood	Semi-Peripheral	10-10-62	8,000	1,677	7	Third Cat Creek
Cat Creek, 1st & 2nd CC (Unit 2)	Farmers Union	Waterflood	Semi-Peripheral	12- 1-59	16,600	747	5	Third Cat Creek
Cut Bank NE, Cut Bank	Texaco, Inc.	Waterflood	5-Spot	6- 2-63	11,441	1,844	14	Madison
Cut Bank NW, Cut Bank	Phillips	Waterflood	5-Spot	1-30-62	12,400	824	15	Madison
Cut Bank SC, Cut Bank	Union Oil	Waterflood	5-Spot	5-63	22,258	6,981	55	Madison
Cut Bank SE, Cut Bank	Texaco, Inc.	Waterflood	5-Spot	4-62	38,534	14,040	51	Madison
Cut Bank SW, Cut Bank	Phillips	Waterflood	5-Spot	9-62	48,000	23,207	114	Madison
Cut Bank Tribal, Lander	Humble	Waterflood	Random	6-51	Shut-in	--	--	Eagle
Cut Bank, Lander Unit "A", Lander	Phillips	Waterflood	Random	4-65	1,200	118	2	Madison
Cut Bank, Lander	Texaco, Inc.	Waterflood	Random	7-64	5,094	1,639	8	Eagle
Cut Bank, McGulness, Moulton	Union Oil	Waterflood	Random	12-62	2,646	486	1	Madison
Cut Bank, Tesoro, Cut Bank	Tesoro	Waterflood	5-Spot	9- 1-71	106	1,196	17	Madison
Cut Bank, Two Medicine Unit, Cut Bank	Miami	Waterflood	Random	12-67	26,013	17,359	99	Madison
Cut Bank, West Wilcox, Moulton	Oecalta	Waterflood	Random	2-71	848	740	1	Madison
Darling, State, Moulton	BG&O	Waterflood	Random	2-67	1,521	469	1	Madison
Darling NE Unit, Moulton	Ralph Fair	Waterflood	Random	2-68	2,800	1,876	4	Produced Water
Darling South Swenson, Moulton	BG&O	Waterflood	Random	2-67	5,220	2,692	5	Madison
Dwyer, Ratcliffe	Phillips	Waterflood	Peripheral	10-68	600	740	1	Madison
Elk Basin, Frontier	Amoco	Waterflood	Random	1926	696	2,182	2	Madison
Elk Basin, Unit 2, Tensleep	Amoco	Waterflood	Random	1949	2,954	692	2	Produced Water
Elk Basin, Madison	Amoco	Waterflood	Peripheral	1962	37,883	9,652	8	Produced Water
Elk Basin NW,Frontier	Atlantic Richfield	Waterflood	Peripheral	10-57	Shut-in	--	-	Shut-in 6-8-71
Elk Basin NW,Tensleep	Atlantic Richfield	Waterflood	Semi-Peripheral	5-67	1,973	1,368	1	Madison
Fairview, NW Unit, Red River	Superior	Gas Injection	Crestal	10-25-70	777	1,695 (G)	1	Purchased Gas
Flat Coulee, Swift	Cardinal	Waterflood	Peripheral	2- 1-72	556	2,392	15	Eagle
Flat Lake, Ratcliffe	Chevron	Waterflood	Random	6- 1-71	3,556	4,832	11	Produced Water
Frannie, Tensleep	Continental	Waterflood	Random	9-70	743	933	1	Produced Water
Fred & George Creek, Sunburst	Fulton Producing	Waterflood	Random	7-70	3,944	6,184	1	Madison and Eagle
Gas City, Red River	Shell	Waterflood	Semi-Peripheral	10-31-69	3,548	3,738	7	Mission Canyon
Jim Coulee, Tyler "B"	McAlester Fuel	Waterflood	Semi-Peripheral	6- 1-72	291	2,227	4	Third Cat Creek Water
Keg Coulee NW Unit, Tyler	Amoco	Waterflood	Semi-Peripheral	8-31-66	3,941	1,258	2	Madison
Keg Coulee East, Tyler	Continental	Waterflood	Semi-Peripheral	12-24-69	2,220	1,896	5	Third Cat Creek Water
Keg Coulee South, Tyler	BG&O	Waterflood	Semi-Peripheral	1- 1-70	809	725	2	Madison
Kelley, Tyler	McAlester Fuel	Waterflood	Random	7-69	679	890	3	Third Cat Creek
Kevin-Sunburst, Madison	Lon Crumley	Waterflood	Random	9-63	763	293	2	Madison
Kevin-Sunburst, Madison	BG&O	Waterflood	Random	8-64	2,916	1,467	7	Madison
Kevin-Sunburst, Madison	Texaco, Inc.	Waterflood	Semi-Peripheral	8-64	6,674	2,463	10	Madison
Little Beaver, Red River	Shell	Waterflood	Semi-Peripheral	8- 7-66	15,223	5,715	13	Madison
Little Beaver East, Red River	Shell	Waterflood	Semi-Peripheral	4-65	6,183	1,558	3	Madison
Lookout Butte, Red River	Shell	Waterflood	Semi-Peripheral	4-67	13,059	5,668	13	Minnelusa
Mosby, Second Cat Creek *	Farmers Union	Waterflood	Random	5-68	267	170	2	Third Cat Creek Water
Mosby, Swift *	Farmers Union	Waterflood	Random	7-67	2,000	1,106	5	Third Cat Creek Water
Mosby, Amsden *	Farmers Union	Waterflood	Random	6- 1-71	24	25	1	Third Cat Creek Water
Moulton, Moulton **	Union	Waterflood Gas Injection	Random Random	11-69 5-15-71	8,460 477	7,119 (W) 644 (G)	9 2	Water inj. into Madison Gas inj. into Moulton
Pennel, Red River	Shell	Waterflood	Random	6-28-69	17,490	18,020	38	Dakota and Produced Water
Pine South, Red River	Shell	Waterflood	Semi-Peripheral	3-59	79,826	34,892	41	Fox Hills & Produced
Pine North, Red River	Shell	Waterflood	Semi-Peripheral	3-68	8,041	3,963	11	Lodgepole
Ragged Point, Tyler "A"	BG&O	Waterflood	Semi-Peripheral	12- 3-66	4,346	1,341	4	Third Cat Creek Water
Reagan, Madison	Union	Gas Injection	Random	8-61	3,858	1,042 (G)	2	Gas Injection
Red Creek, Cut Bank Sand	Humble	Waterflood	5-Spot	6-65	6,500	3,322	6	Madison
Richey SW, Dawson Bay-Interlake	Atlantic Richfield	Waterflood	Random	12-65	1,967	207	1	Fox Hills
Stensvad, Tyler "B"	Amoco	Waterflood	Semi-Peripheral	2-63	20,983	5,263	7	Madison
Sumatra West, Tyler "B"	Continental	Waterflood	Semi-Peripheral	10-68	6,795	2,998	6	Madison
Sumatra Central, Tyler "B"	Texaco, Inc.	Waterflood	Semi-Peripheral	9-16-69	20,163	19,718	14	Madison
Sumatra NE, Tyler "B"	Texaco, Inc.	Waterflood	Semi-Peripheral	9-16-69	1,690	1,049	6	Madison
Sumatra SE, Tyler "B"	BG&O	Waterflood	Semi-Peripheral	12- 1-69	2,999	2,553	6	Madison
TOTAL PROJECTS 67					(W) 656,102 (G) 5,112	(W) 329,364 (G) 3,381	(W) 782 (G) 11	

* Part of Cat Creek Field

** Part of Cut Bank Field

OIL AND GAS DISCOVERIES IN 1972

County	Operator-Well Name and Location	Field	Total Depth	Initial Potential Oil B/D	Initial Potential Gas MCF	Producing Formation	Date Completed
Blaine	Fulton Producing, Flynn 24-21, SE SW 21-33N-20E	Wildcat	1,500		Shut-in	Eagle	5-16-72
	Texas Gas Explor., Federal 34-1, NW SE 34-26N-20E	Wildcat	1,922		Shut-in	Eagle	7-2-72
	True Oil, Thorstead 32-19, SW NE 19-28N-19E	Wildcat	1,930		Shut-in	Eagle	7-12-72
	Amoco, Sonneberg 1, SE NW 24-34N-19E	Rabbit Hills	4,038	114 P	Shut-in	Sawtooth	9-18-72
	Wise Oil, Williamson 31-8, SW SW NE 8-26N-19E	Wildcat	2,229		1,200	Eagle	3-30-72
	U.S. Signal Oil & Gas, Federal 3001, SW SE 30-24N-21E	Wildcat	1,400		Shut-in	Eagle-Judith River	2-26-72
	Probe Oil, Putnam 1, NW SW 20-33N-19E	Wildcat	1,276		Shut-in	Judith River	10-13-72
Chouteau	Roland S. Bond-Lone Star, Weaver 2-28, SE¼ 28-27N-16E	Wildcat	2,043		Shut-in	Eagle	1-16-72
	Universal Resources, State 1-30, NE NE 30-27N-14E	Wildcat	1,603		200	Eagle	7-29-72
	Love Oil, Hagen 1-28, SE NW 28-29N-13E	Wildcat	1,011		Shut-in	Eagle	9-9-72
Dawson	Lamar Hunt, Hubing Ranch 1, NE NE 26-20N-56E	Burns Creek	11,575	168 F		Red River	2-14-72
Fergus	Texas Gas Explor., Manuel 1, SE NE SW 10-22N-18E	Wildcat	1,879		707	Eagle	8-9-72
	Texas Gas Explor., Osburnsen 2, NW NW 25-23N-19E	Wildcat	1,980		3,500	Eagle	8-30-72
Hill	Fulton Producing, Higgins 33-8, NW SE 8-33N-14E	Wildcat	1,452		Shut-in	Eagle	6-6-72
	Wainoco, Nichols 1-28, SW NE NE 28-34N-15E	Wildcat	1,006		Shut-in	Eagle	2-24-72
	Colorado Oil & Gas, Dobbie 1, C NW¼ 15-31N-13E	Wildcat	1,202		Shut-in	Eagle	9-30-72
	Love Oil Company, Anderson 1-9, NW NW 9-33N-15E	Wildcat	1,663		Shut-in	Eagle	7-16-72
	Love Oil Company, Niederegger 1-29, NW SE 29-30N-13E	Wildcat	930		Shut-in	Eagle	9-9-72
	Webb Resources, Lipp 18-16, SE SE 18-32N-11E	Wildcat	3,750		Shut-in	Eagle	7-28-72
	Love Oil Company, Brownlee 1-7, SW NE 7-31N-11E	Wildcat	1,261		Shut-in	Eagle	9-22-72
Pondera	Milan Ayers, Federal M-12623 1, SW NE 21-31N-3W	Wildcat	2,350		Shut-in	Blackleaf	Unknown
Richland	Pennzoil, Nohly 1, SW SW 26-26N-59E	Nohly	12,980	1,120 F		Red River	2-5-72
	Pennzoil, Sundheim 1, SW SE 8-24N-59E	Second Creek	12,804	2,162 F		Red River	12-28-72
Roosevelt	Calvert-Petro Funds, Federal 1, SE SW 33-30N-48E	Chelsea Creek	7,545	160 P		Nisku	4-29-72
Sheridan	Oil Development of Texas, State 1-16, NW NE 16-36N-54E	Raymond	10,203	940 F 1,636 F		Red River Winnipegosis	3-26-72
Toole	Fulton Producing, State 32-36, SW NE 36-35N-1E	Wildcat	2,064	5 P		Sawtooth	5-15-72

SIGNIFICANT EXTENSIONS IN 1972 AND NEW PAY ZONES

Carbon	Montana Power, Robinson 15-3, NE SW SE 3-7S-21E	Dry Creek	2,000		90	Judith River	9-1-72
Musselshell	McAlester Fuel, Foxley 28-6, SE NW 28-11N-27E	Jim Coulee	3,775	70 P		Stensvad	11-1-72
	Exeter Orilling, Stensvad 11-35, NE SW 35-11N-30E	Keg Coulee	4,680	92 P		Stensvad	7-25-72
	Cardinal Petroleum, Hougen 1, NW NE 17-10N-29E	Kelley	4,390	143 P		Lower Tyler	10-3-72
Richland	Tenneco, Daniels-Federal 1, Lot 1, Sec. 6-24N-57E	Lone Tree Creek	12,610	204 F		Red River	10-25-72
Roosevelt	Petroleum, Inc., Bigtrack Little 1, NW NE 6-30N-48E	East Benrud	7,606	101 P		Nisku	11-26-72
Rosebud	North American Royalties, Grebe 2, Lot 20, Sec.5-11N-32E	Stensvad	5,684	25 P		Lower Tyler	9-2-72
	Farmers Union, Grebe 15X-17, SE SW SE 17-11N-32E	Sumatra	5,100	410 P		Lower Tyler	9-9-72

P = Initial Potential Pumping
F = Initial Potential Flowing
MCF/D = Thousands of Cubic Feet of Gas Per Day

Field, Formotion, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spocing Regulotions, Field Rules, ond Remorks	Secondory Recovery or Woter Disposol
ANTELOPE					
Swift (U. Jur.)	3	Structural	Water Drive	(Listed as part of Cat Creek Field.)	None
ARCH APEX					
Baw Island (L. Cret.) Gas	4	Strat.	Volumetric	330' from legal subdivision; 2400' from any other drilling or producible gas well producing from the same reservoir; 75' topographic tolerance. (Order 4-60.) (Sometimes called Colorado Blackleaf pool.) (Swift) State-wide.	None
Swift (Jurassic) Gas (Shut-in)	3	Strat.	Volumetric		
ASH CREEK					
Shannon (U. Cret.)	3	Structural	Partial Water Drive and Depletion	Spacing waived within unitized portion of field except no well may be drilled closer than 660' from unit boundary. (Order 4-65.)	Waterflood started October, 1964. (Orders 22-64, 15-66.)
BAINVILLE					
Red River (Ord.)	1	Structural-Strat.	Depletion-Water Drive	State-wide.	None
(Shut-in)	1				
BANNATYNE					
Swift (U. Jur.) (Shut-in)	2?	Structural	Comb. Water Drive and Volumetric	Center of 10-acre tracts, 50' topographic tolerance. Commingling permitted. (Order 20-58.)	Pilot waterflood of Swift suspended in 1963.
Sun River (U. Miss.) (Shut-in)	2?				
BEARS DEN					
Sunburst (L. Cret.) Gas (Shut-in)	2	Structural	Depletion and Gas Cap Drive	State-wide.	None
Swift (U. Jur.) Oil	5				
Sawtooth (Jur.) Gas (Shut-in)	1				
BELL CREEK					
Muddy (L. Cret.) Oil & Gas	256	Strat.	Depletion	Originally 40-acre spacing units with location 660' from unit boundary with 150' tolerance for topographic reasons only. (Orders 37-67, 39-67, 50-67, 1-69, 17-70.) Field now unitized.	Six areas unitized (Unit "A", "B", Ranch Creek, "C", "D", and "E".) Floods use Madison water. (Orders 7-70, 23-70, 8-71, 26-71, 35-71, 36-71.)
Gas	1				
BELL CREEK, SOUTHEAST					
Muddy (L. Cret.) Gas	4	Strat.	Depletion	160-acre spacing units, wells 660' from spacing boundary. (Order 31-72.)	None
BENRUD					
Nisku (Dev.)	1	Structural	Water Drive	160-acre spacing units with permitted location within a 1320' square in center of quarter section. (Order 6-65.)	Water disposal into Judith River formation. (Order 64-62.)
(Shut-in)	1				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
BENRUD, EAST					
Nisku (Dev.)	3	Structural	Water Drive	Same as Benrud Field. (Order 6-65.)	Water disposal into Judith River formation. (Order 64-62, 32-66.)
BENRUD, NORTHEAST					
Nisku (Dev.)	1	Structural	Water Drive	Same as Benrud Field. (Order 6-65.)	Water disposol into Judith River formotion. (Order 32-66.)
BERTHELOTE					
Sunburst (L. Cret.) (Shut-in)	1	Strat.	Depletian	40-acre spacing units with well no closer than 330' from lease or property line and no closer than 660' between wells. (Order 18-66.)	None
BIG COULEE					
3rd Cat Creek (L. Cret.) Gas	5	Structural	Water Drive	State-wide.	None
Morrisan (U. Jur.) Gas	1	Structural	Water Drive		
BIG WALL					
Amsden (Penn.)	1	Structural	Water Prive	Spaced by old state-wide spacing; 330' from lease or property line, 990' between wells in same reservoir. (Order 12-54.)	Previous disposal into Tyler "A" stopped in 1961. Waterflood of Tyler "B" sand started August, 1966. (Order 22-66.)
(Shut-in)	1				
Tyler (Penn.)	12	Struct.-Strat.	Depletion		
(Shut-in)	4				
BLACKFOOT					
Cut Bank (L. Cret.)	5	Strat.	Depletion	One well only per 40-acre spacing unit, 300' tolerance from center of spacing unit. Dual completion in Cut Bank and Madison with administrative approval. (Order 3-57.)	None
(Shut-in)	5				
Sun River (Miss.)		Structural	Water Drive		
BLACK JACK					
Sunburst (L. Cret.) Gas	10	Strat.	Depletion	One gas well per 160-acres, no closer than 660' from boundary of each unit. (Order 3-69.) Oil: State-wide spacing.	None
Swift (U. Jur.) Gas & Oil	1				
BORDER					
Cut Bank (L. Cret.) Oil & Gas	7	Strat.	Depletion	Oil: 220' from boundary af legal subdivisian and 430' between wells in same formation; 75' topographic tolerance. Gas: 330' from boundary of legal subdivision. 2400' between wells in same formation on same lease. 75' topographic tolerance. (Order 7-54.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
BOWDOIN					
Bowdoin & Phillips sands in Colorado Shale (U. Cret.) Gas	327	Structural	Volumetric	One well per quarter section not less than 1000' from lease boundary or less than 2000' from any gas well in same horizon. (Order 29-55.)	None
(Shut-in)	19				
BOWES					
Eagle (U. Cret.) Gas	18	Structural	Volumetric	660' from boundary of legal subdivision, 1320' from other wells in same formation. 75' topographic tolerance. (Order 23-54.)	None
Sawtooth (M. Jur.) Oil	47	Structural	Partial Water Drive	330' from lease or property line, 990' between wells in the same formation. (Order 13-54.)	Pilot waterflood initiated in 1961 and expanded to field-wide waterflood in 1965. (Order 5-61.) Water from Madison.
(Shut-in)	29				
BRADLEY					
Sun River (Miss.)	1	Structural	Water Drive	State-wide.	None
(Shut-in)	1				
BRADY					
Sunburst (L. Cret.) (Shut-in)	1	Strat.	Depletion, Partial Water Drive	10-acre spacing units with 75' topographic tolerance from center of spacing unit. (Order 34-62, 55-62.)	None
	1				
BRORSON					
Mission Canyon (Miss.) Oil & Gas	4	Structural	Volumetric, Water Drive	One well per 160-acre unit, no closer than 660' from unit boundary (Mission Canyon and Red River). (Order 5-69.) Gas to Brorson Field plant.	None
Red River (Ord.) Oil & Gas	5				
BRORSON, SOUTH					
Red River (Ord.) Oil & Gas	3	Structural	Volumetric, Water Drive	One well per 160-acre unit, no closer than 660' from unit boundary. (Order 26-68.) Gas to Brorson Field plant.	None
BRUSH LAKE					
Red River (Ord.) Oil & Gas	5	Structural-Strat.	Depletion Water Drive	320-acre spacing with initial nine spacing units described in (Order 15-71 corrected).	None
BURNS CREEK					
Red River (Ord.)	1	Structural	Depletion Water Drive	State-wide.	None
CABIN CREEK					
Mission Canyon (Miss.) Oil & Gas	19	Structural	Water Drive, Depletion	Spacing waived and General Rules No. 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 36-62.) Many wells produce from both Interlake and Red River by dual completions. Gas through extraction plant.	Waterflood of Siluro-Ordovician reservoir has been expanded to a full scale peripheral flood. (Orders 60-62, 30-63.)
Interlake-Red River Oil & Gas	71	Structural	Water Drive, Depletion		

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
CANAL					
Red River (Ord.)	1	Structural	Water Drive Depletion	320-acre spacing units consisting of East half and West half of governmental section. (Order 34-70.)	None
CAT CREEK					
Kootenai (L. Cret.)	30	Structural-Strat.	Water Drive	220' from lease or property line, 440' from every other well in same formation. (Order 17-55.) Five separate producing areas, East, Antelope, Mosby, West and Landheim Domes.	Three Kootenai, two Ellis, and one Amsden waterfloods in progress. (Orders 17-56, 18-59, 13-62, 8-68, 38-70, 11-71.) Water from Third Cat Creek sand.
(3 sands) (Shut-in)	4				
Morrison (U. Jur.)	2	Structural-Strat.	Water Drive		
Ellis (U. Jur.)	11	Structural	Depletion-Water Drive		
(Shut-in)	5				
Amsden (Penn.)	1	Structural-Strat.	Water Drive	State-wide.	
CEDAR CREEK					
Judith River (U. Cret.) Gas	188	Structural	Volumetric	1200' from legal subdivision line, 2400' from every other well in same formation. (Order 33-54.)	None
Eagle (U. Cret.) Gas	50	Structural	Volumetric	320-acre spacing units. Wells in center of NW¼ and SE¼ of each section with 200' topographic tolerance. (Order 1-61.)	None
CHELSEA CREEK					
Nisku (Dev.)	1	Structural	Water Drive	State-wide.	None
CLARK'S FORK					
Frontier (U. Cret.)	1	Structural-Strat.	Depletion	330' from quarter-quarter section line, 1320' between wells with 75' topographic tolerance. (Order 17-54.)	None
CLARK'S FORK, SOUTH					
Greybull (L. Cret.) Oil & Gas (Shut-in)	1	Structural-Strat.	Depletion-Water Drive	160-acre spacing, location no closer than 330' from quarter section line or 1320' from any other well.	None
CONRAD, SOUTH					
Dakota (L. Cret.) (Shut-in)	1	Strat.	Depletion	10-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.)	None
COW CREEK					
Charles (Miss.)	2	Structural	Water Drive	80-acre spacing units, direction at option of operator but wells to be in SW¼ and NE¼ of each quarter section. (Order 11-69.)	None
COW CREEK, EAST					
Kibbey (Miss.)	5	Structural	Water Drive	80-acre spacing units east half and west half of quarter section, wells NE¼ and SW¼ of each quarter section with 150' topographic tolerance. (Order 32-71.)	None
(Shut-in)	1				

Field, Formotion, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
CULBERTSON					
Red River (Ord.)	1	Structural-Strat.	Depletion-Water Drive	State-wide in part. Unitized as to SE¼ of Section 32, SW¼ of Section 33, N½NW¼ of Section 4, and N½ NE¼ of Section 5. (Order 29-70.)	None
CUPTON					
Red River (Ord.)	7	Structural-Strat.	Water Drive	80-acre spacing units consisting of E½ and W½ of quarter section; well location SE¼ and NW¼ of quarter section with 75' topographic tolerance. (Order 31-55.)	None
CUT BANK					
Kootenai (L. Cret.) Oil & Gas	926	Strat.	Depletion	(Kootenai formation includes Moulton, Sunburst, and Cut Bank sands.) Oil: 330' from legal subdivision line. 650' between wells in same formation. 5-spot on 40-acre tract permitted. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Sections 20, 29, and 32 of Township 36 North, Range 4 West spaced 320-acres (N½ & S½.) (Order 26-70.)	There are 19 waterfloods in progress. Water from Eagle and Madison, or produced.
(Gas only)	129				
Madison (Miss.) Oil & Gas	27	Strat.	Water Drive		
(Gas only) (Shut-in)	29				
DARLING					
(Included as part of Cut Bank Field)					
DEAN DOME					
Greybull (L. Cret.) Gas (Shut-in)	1	Structural	Water Drive	State-wide. Oil ring below gas cap.	None
Oil (Shut-in)	1				
DEER CREEK					
Interlake (Sil.)	1	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Well location in NE¼ and SW¼ of each quarter section with 75' topographic tolerance. (Orders 23-55 & 14-59.) Commingling of production permitted upon approval of Commission Petroleum Engineer. (Order 18-63.)	Excess produced water is disposed into Dakota and Lakota formations. (Orders 6-56 & 3-58.) Two Silurian wells shut-in.
(Shut-in)	4				
Red River (Ord.) (Shut-in)	2	Structural	Water Drive		
DELPHIA					
Amsden (Penn.)	1	Structural	Water Drive	State-wide.	None
DEVIL'S BASIN					
Heath (U. Miss.)	5	Structural	Depletion	State-wide.	None
DEVON					
Blackleaf (U. Cret.) Gas (Shut-in)	23	Strat.	Volumetric	State-wide.	None
Kootenai (L. Cret.) Oil Depleted		Strat.	Depletion	State-wide.	None
DEVON, SOUTH					
Bow Island (L. Cret.) Gas	1	Strat.	Volumetric	Drilled on state-wide spacing. Unitized for primary production. (Order 28-71, corrected).	None
(Shut-in)	9				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
DRY CREEK					
Eagle (U. Cret.) Gas	1	Structural-Strat.	Volumetric	State-wide. Field re-delineated. (Order 8-70.)	None
Frontier (U. Cret.) Gas	8	Structural	Volumetric	Six additional gas storage wells, west end of structure.	
Greybull (L. Cret.) Gas, some oil (Shut-in)	1	Structural-Strat.	Volumetric-Depletion		
DWYER					
Ratcliffe (Miss.)	12	Structural-Strat.	Water Drive-Volumetric	160-acre spacing units; well location in center of SE¼ of spacing unit with 175' topographic tolerance. (Orders 25-60, 29-61.)	Produced water disposed into Dakota formation. (Order 26-63.) Waterflood. (Order 20-68.)
(Shut-in)	4				
EAST KEITH & KEITH					
Bow Island (L. Cret.) Gas	7	Structural	Water Drive	State-wide, except unitized portions spaced by (Order 22-62). Pooling (Order 19-66).	None
Dakota (L. Cret.)	1				
Sawtooth-Madison (Jur.-Miss.) Gas	5				
ELK BASIN (Mont. Portion)					
Frontier (U. Cret.)	9	Structural	Gravity Drainage	Rule No. 203 (Spacing) is waived within Unit Area. (Order 10-61.) Gas to Elk Basin gasoline plant.	Frontier: Water injection. (Order 1-72.) Embar - Tensleep; pressure maintenance by crestal gas injection. Waterflood approved in 1966. (Order 5-66.) Madison: Water injection.
(Shut-in)	14				
Embar-Tensleep (Perm., Penn.) Oil and Gas	16	Structural	Gravity Drainage		
(Shut-in)	13				
Madison (Miss.)	20	Structural	Water Drive		
ELK BASIN, NORTHWEST					
Frontier (U. Cret.)	2	Structural	Depletion	Spacing waived within unitized portion except that bottom of hole be no closer than 330' from unit boundary and there be at least 1320' surface distance between wells in same formation; 75' topographic tolerance. (Orders 43-63, 28-64.) Gas to Elk Basin gasoline plant.	Frontier: Waterflood in progress. Embar - Tensleep: Waterflood. (Order 3-67.) Madison, produced water.
(Shut-in)	5				
Embar-Tensleep (Perm., Penn.) Oil and Gas	4	Structural	Gravity Drainage		
Madison (Miss.)	2	Structural	Water Drive		
ETHRIDGE AREA					
Bow Island (L. Cret.) Gas	5	Strat.	Water Drive	State-wide.	None
Swift (U. Jur.) Gas	5	Strat.	Water Drive	State-wide, except two wells by (Order 28-65).	
(Shut-in)	1				
FAIRVIEW					
Winnipegosis (Dev.) Oil & Gas	1	Structural	Water Drive	160-acre spacing unit. Well location anywhere in spacing unit but no closer than 660' from unit boundary. (Order 48-65, 1-67, 43-67, 44-67.) Gas to Fairview plant.	Northwest part of field unitized for gas injection. Gas from Fairview and Brorson fields. (Order 11-70.) Salt water disposal into Dakota. (Orders 9-A-71, 24-A-71.)
Red River (Ord.) Oil & Gas	11	Structural	Water Drive		

Field, Formation, Age	No. Prod. Wells	Type of Trop	Probable Drive Mechonism	Spacing Regulotions, Field Rules, and Remorks	Secondary Recovery or Woter Disposal
FERTILE PRAIRIE					
Red River (Ord.)	2	Structural-Strat.	Water Drive	80-acre spacing units consisting of north-south rectangular units. Well location in NW¼ and SE¼ of quarter section with 75' tapagraphic tolerance. (Orders 3-56, 7-62.)	None
FLAT COULEE					
Bow Island (L. Cret.) Gas	3	Structural and Strat.	Depletion	330' fram baundary of legal subdivision and 1320' fram ather wells in same reservoir. (Order 16-55.)	Waterflaad unit and redelinia-atian appraved for Swift sandstone. (Orders 13-71, 17-A-71, 22-71.)
(Shut-in)	1				
Dakota (L. Cret.) Gas	2	Strat.	Depletian	State-wide, exception (Order 11-66.)	
Swift (Jur.) Gas	1	Strat.	Depletion	State-wide gas spacing.	
Swift (Jur.) Oil	20	Strat.	Depletion	40-acre spacing units. Well in center of spacing unit with 150' tapagraphic tolerance. (Orders 16-62, 19-63.)	
Sunburst (Jur.) Gas	1	Strat.	Depletion		
Sawtooth (Jur.) Gas	1	Strat.	Depletion	State-wide.	
FLAT LAKE					
Nessan (Miss.)	1	Strat.	Partial Water Drive	160-acre spacing units; well location in center of NE¼ of quarter sectian with 200' topographic tolerance. Wells no claser than 961' to Narth Dakota state line and no claser than 1600' to Canadian line. (Orders 10-65 amended, 43-65, 23-66, 33-66.)	Excess salt water disposed into Muddy, Dakota, or Lakota formations. (Orders 39-64, 39-66.) Unit operatian far eastern part of field. (Order 7-71.)
Ratcliffe (Miss.)	52	Structural-Strat.	Partial Water Drive		
(Shut-in)	5				
FLAT LAKE, SOUTH					
Ratcliffe (Miss.)	6	Structural-Strat.	Partial Water Drive	Same as Flat Lake spacing. (Order 2-67.)	Excess salt water disposed into Muddy, Dakota, or Lakota. (Order 19-67.)
FRANNIE (Mont. Portian)					
Tensleep (Penn.)	1	Structural	Comb. Water Drive and Gravity Drainage	10-acre spacing units; well location in center of each unit with 100' topographic tolerance. (Order 35-63.)	Unitized far waterfload of Phosphoria-Tensleep formations using produced fluids. (Order 21-70.)
FRED & GEORGE CREEK					
Sunburst (L. Cret.) Oil & Gas	18	Strat.	Depletion	Oil: 40-acre spacing units; well lacation in center of unit with 250' tapographic talerance. (Orders 29-63, 1-65.)	Sunburst waterflood initiated July, 1970, using water from Madison, (Order 13-70) and Eagle water. (Order 27-71.)
(Shut-in)	2				
Swift (U. Jur.) Oil & Gas	11	Strat.	Depletion	State-wide.	
FROID, SOUTH					
Red River (Ord.)	1	Structural-Strat.	Depletion	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
FT. GILBERT					
Red River (Ord.)	2	Structural-Strat.	Depletion	State-wide.	None
(Shut-in)	1				
GAGE					
Amsden (Penn.)	1	Structural	Water Drive	State-wide.	None
GAS CITY					
Red River (Ord.)	18	Structural	Depletion-Water Drive	80-acre spacing units consisting of E½ and W½ of quarter sections; well location in NW¼ and SE¼ of quarter section; 150' topographic toloerance. Spacing waived and state-wide Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are waived in unitized portion of field. (Order 29-62.)	Excess produced water disposed into Judith River formation. (Orders 32-61, 20-64.) Waterflood using produced water and Madison water. (Order 16-69.)
GIRARD					
Red River (Ord.)	2	Structural-Strat.	Depletion-Water Drive	State-wide.	None
GLENDIVE					
Red River (Ord.) Oil & Gas	14	Structural-Strat.	Depletion-Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections; wells located in center of NE¼ and SW¼ of each quarter section with 75' topographic tolerance. (Orders 27-55, 19-62, 58-62, 20-66.)	Excess produced water disposed into Swift, Dakota and Judith River formations. (Orders 16-56, 16-63, 40-A-70.)
(Shut-in)	1				
GOLD BUTTE					
Bow Island (L. Cret.)	1	Structural	Water Drive?	640-acre spacing, well location any quarter-quarter section cornering on center of section. (Order 26-59)	None
Swift (U. Jur.) Gas (Shut-in)	1	Structural	Water Drive?		
GOLDEN DOME					
Eagle (U. Cret.) Gas (Shut-in)	2	Structural-Strat.		160-acre spacing; 660' from spacing unit boundary.	None
GOOSE LAKE					
Ratcliffe (Miss.) Oil & Gas	30	Structural-Strat.	Partial Water Drive	Unitized. (Order 1-72.)	Excess produced water disposed into Mission Canyon and Dakota formations. (Orders 12-64, 14-66, 12-68.)
(Shut-in)	4				
GRABEN COULEE					
Sunburst (L. Cret.)	1	Structural-Strat.	Depletion	40-acre spacing units; well location no closer than 330' from legal subdivision. (Cut Bank and Madison) Oil: 330' from boundary of legal subdivision and 650' from any other well in same reservoir and on same lease. 75' topographic tolerance. (Order 73-62.)	None
Cut Bank (L. Cret.)	17	Structural-Strat.	Depletion		
Cut Bank-Madison (Dual)	3	Structural-Strat.	Depletion		

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechonism	Spacing Regulations, Field Rules, and Remarks	Secandory Recovery or Woter Disposol
GRANDVIEW					
Bow Island (L. Cret.) Gas (2 Zones)	6	Structural	Unknown	320-acre spacing units aligned in a north-south direction; well locations no closer than 660' to a spacing unit boundary. (Order 49-67.) Dual completion with Bow Island.	None
Madison (Miss.) Gas	1	Structural	Unknown		
GYPSY BASIN					
Sunburst (L. Cret.) Oil & Gas	1	Structural-Strat.	Comb. Water Drive and Depletion	330' from lease lines and 660' between wells in same formation. Only two wells per quarter-quarter section. (Order 7-66.)	Order 6-64 permits injection of excessive gas (produced with oil) into the Sunburst gas cap.
Swift (U. Jur.)	1	Structural-Strat.	Comb. Water Drive and Depletion	Same as Sunburst	
Sawtooth-Madison (Jur. & Miss.) Oil & Gas	2	Structural-Strat.	Comb. Water Drive and Depletion	(Sawtooth-Madison) Oil: 40-acre spacing units; wells no closer than 330' from lease line. (Order 7-66.) (Sawtooth-Madison) Gas: 160-acre spacing units; well locations in center of any quarter-quarter section in each 160-acre unit, 2340' between gas wells. 150' topographic tolerance. (Order 13-59.)	
HARDIN					
Frontier (U. Cret.) Gas (Shut-in)	35 13	Strat.	Volumetric	State-wide.	None
HAVRE					
Eagle (U. Cret.)	1	Structural-Strat.	Water Drive Depletion	State-wide. Single well used in town of Havre.	None
HAY CREEK					
Mission Canyon (Miss.)	1	Structural	Depletion	320-acre spacing, governmental half section, direction to be determined by operator. Location no closer than 660' from unit boundary. (Order 15-69.) Gas to Brorson plant.	None
Red River (Ord.)	2	Structural	Volumetric Water Drive		
HIAWATHA					
Tyler (L. Penn.) (2 Sands)	4	Structural-Strat.	Depletion	State-wide.	None
HIBBARD					
Amsden (Penn.)	1	Unknown	Water Drive	State-wide.	None
INJUN CREEK					
Tyler (Penn.)	1	Strat	Depletion	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
IVANHOE					
Morrison (U. Jur.)	1	Structural-Strat.	Depletion	40-acre spacing unit for production from any one common formation; well location in center of unit with 200' topographic tolerance. (Order 7-60.)	Waterflood of Tyler B & C sands discontinued.
Amsden (L. Penn.) (Shut-in)	1	Structural-Strat.	Water Drive		
Tyler (L. Penn.)	10	Structural-Strat.	Depletion		
JIM COULEE					
Tyler (L. Penn.)	24	Structural-Strat.	Depletion Water Drive	Unitized. (Order 18-72.) No well closer than 330' from unit boundary.	Waterflood; produced and Third Cat Creek water.
KEG COULEE					
Tyler (Penn.) Oil & Gas	18	Strat.	Depletion	40-acre spacing in southwest portion of field except that spacing is waived in unitized portion. (Orders 3-64, 4-64, 23-64.) 80-acre spacing in remainder of field with variable pattern. (Orders 11-60, 28-62.) Topographic tolerance varies from 100' to 250'. (Orders 11-60, 4-64, 23-64.) Buffer zone waived. (Order 16-65.) Gas to extraction plant in Sumatra Field.	Three waterflood units. (Orders 3-64, 28-66, 10-69, 14-69.) Madison water injected.
(Shut-in)	2				
KEG COULEE, NORTH					
Tyler (Penn.)	2	Strat.	Depletion	40-acre spacing units; well location in center of spacing unit with 150' tapographic tolerance. (Order 46-64.) Buffer zone waived. (Order 16-65.) Gas to extraction plant.	None
KEITH (see East Keith)					
KELLEY					
Tyler (Penn.)	3	Strat.	Depletion	State-wide, 250' tapographic tolerance. (Order 15-67.)	Waterflood using Third Cat Creek water. (Order 8-69.)
KEVIN-SUNBURST					
Sunburst (L. Cret.) Oil & Gas	40?	Strat.	Depletion	9 wells per 40-acre tract; only 3 wells on any side of tract set back at least 220' from line. Field delineated by (Orders 8-54, 28-55.) (Estimated 400 wells shut-in.)	There are five waterfloods in operation, using Madison water. (Orders 9-64, 17-64, 30-64, 36-65, 29-71.)
Swift (U. Jur.)	?	Structure			
Sun River (Miss.) Oil & Gas	333?	Structure-Strat.	Depletion		
Gas only	12				
(Shut-in)	?				
LAIRD CREEK					
Swift (U. Jur.) Oil & Gas	10	Strat.	Depletion	State-wide. One shut-in gas well.	None
(Shut-in)	1				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
LAKE BASIN, NORTH						
Eagle, Frontier (U. Cret.)	Gas	2	Structural	Unknown	640-acre gas spacing units consisting of one section. Well locations in center of NW¼ or SE¼ of each section with 75' topographic tolerance. (Order 6-58.)	None
	(Shut-in)	2				
LANDSLIDE BUTTE						
Sun River (Miss.)		2	Unknown	Water Drive	State-wide.	None
	(Shut-in)	1				
LEARY						
Muddy (L. Cret.)		3	Structural-Strat.	Depletion	80-acre spacing with locations in NE¼ and SW¼ of each quarter section, 200' topographic tolerance. (Order 12-69, 19-70.)	None
LISCOM CREEK						
Shannon (U. Cret.)	Gas (Shut-in)	6	Structural-Strat.	Depletion	Spacing, one well per 640 acres.	None
LITTLE BEAVER (Mont. Portion)						
Red River (Ord.)		23	Structural	Comb. Depletion and Water Drive	Spacing waived and General Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 41-62.)	Waterflood of the Red River was commenced in August, 1967. (Order 3-66.) Minnelusa water.
LITTLE BEAVER, EAST (Montono Portion)						
Red River (Ord.)		11	Structural	Comb. Depletion and Water Drive	Some as for Little Beaver. (Order 42-62.)	Waterflood of the Red River was commenced in April, 1965. (Order 33-64.)
LITTLE WALL CREEK						
Tyler (Penn.)		1	Strot.	Depletion Water Drive	State-wide.	None
LODGE GRASS						
Tensleep (Penn.)		2	Structural-Strat.	Water Drive	160-acre spacing units; well locations vary according to areas; 250' topographic tolerance. (Orders 26-64, 26-65.)	None
LONETREE CREEK						
Red River (Ord.)		6	Structural	Depletion	320-acre spacing, wells 660' from spacing boundary, 2000' between wells. (Order 29-72.)	None

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
LOOKOUT BUTTE						
(Includes Coral Creek Unit)						
Madison (Miss.)		3	Structural	Water Drive	State-wide spacing.	Water disposal into Madison. (Order 68-62.)
Interlake, Red River (Sil.-Ord.)		26	Structural	Comb. Depletion and Water Drive	160-acre spacing; well location in center of SE¼ of each quarter section with 150' topographic tolerance. (Order 21-62.) Coral Creek Unit not subject to spacing rules. Redelineated per (Order 7-63.)	Waterflood of Silurian-Ordovician approved in 1966. (Order 35-66.) Water from Minnelusa.
MASON LAKE						
Lakota (L. Cret.)		1	Structural	Water Drive	State-wide.	None
MELSTONE						
Tyler (Penn.)		3	Structural-Strat.	Depletion	State-wide.	None
	(Shut-in)	1				
MIDDLE BUTTE						
Blackleaf (Cret.) Gas		1	Structural	Volumetric	320-acre spacing units consisting of E½ & W½ of each section; well location in center of either of the inside quarter-quarter sections located in E½ of each spacing unit. 75' topographic tolerance. (Order 3-60.)	None
Bow Island	(Shut-in)	2				
MINERAL BENCH						
Duperow (Dev.)		1	Structural	Water Drive	State-wide.	Water disposal into Dakota-Lakota per (Order 18-65.)
MINERS COULEE						
Sunburst (L. Cret.)		1	Strat.	Depletion	40-acre spacing units consisting of quarter-quarter sections; well location no closer than 330' from lease or property line and 660' from any other well. (Order 9-66.)	None
Swift (U. Jur.)	(Shut-in)	3	Strat.	Depletion		
Madisan (Miss.)	(Shut-in)	1	Strat.?	Water Drive		
MONARCH						
Mission Canyon (Miss.)		1	Structural-Strat.	Water Drive	80-acre spacing units consisting of east and west half of quarter section. Well location in SW¼ & NE¼ of quarter section. Location within 660' square at center of quarter section. (Order 18-61.)	Produced water is disposed into the salt water disposal system for the Pennel Field.
Interlake, Red River (Sil.-Ord.)		13	Structural-Strat.		160-acre spacing units consisting of a quarter section; well location in center of SW¼ of each quarter section with 175' topographic tolerance. (Orders 12-59, 4-63.)	
MOSBY						
(See Cat Creek)		12	Structural-Strat.	Water Drive	Listed as part of Cat Creek.	Waterflood, 2nd Cat Creek sand. (Order 8-68.) Waterflood in Amsden. (Order 11-71.)
	(Shut-in)	4				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
MOSSER					
Greybull (L. Cret.)	3	Structural	Water Drive	Spacing waived. Future development requires administrative approval of the Commission. (Order 27-62.)	None
MT. LILLY					
Madison (Miss.) Gas	2	Structural	Water Drive	640-acre spacing, well location in approximate center of any of the four quarter-quarter sections adjoining center of section; 250' topographic tolerance. (Order 37-63.)	None
NOHLY					
Red River (Ord.)	1	Structural	Volumetric Water Drive	State-wide.	None
NORTH LAKE BASIN					
(See Lake Basin, North)					
NORTH WILLOW CREEK					
(See Willow Creek, North)					
OTIS CREEK					
Red River (Ord.)	2	Structural	Depletion	State-wide.	None
OTIS CREEK, SOUTH					
Red River (Ord.)	1	Structural	Depletion	State-wide.	None
OUTLOOK					
Duperow (Dev.)	2	Structural-Strat.	Water Drive	State-wide.	Produced water is disposed into Dakota and Siluro - Devonian formations. (Orders 16-59, 17-65, 36-66.)
Winnipegosis (Dev.)	1	Structural-Strat.	Water Drive	State-wide.	
Silurian-Devonian	5	Structural-Strat.	Water Drive	160-acre spacing units; well location in center of either SW¼ or NE¼ of each quarter section; 175' topographic tolerance. (Order 19-59A.)	
(Shut-in)	2				
OUTLOOK, SOUTH					
Winnipegosis (Dev.) Interlake (Sil.) (Dual Completion with Dev. zone)	1	Structural	Water Drive	160-acre spacing; permitted wells in either SW¼ or NE¼ of quarter section; 175' topographic tolerance. (Order 19-59A.) Commingling permitted. (Order 45-64.)	Produced water disposed into Muddy and Dakota formations. (Orders 19-59, 17-65.)
Red River (Ord.) (Shut-in)	1	Structural	Water Drive		
OUTLOOK, WEST					
Winnipegosis (Dev.)	2	Structural	Water Drive	160-acre spacing units consisting of quarter sections; permitted wells in either SW¼ or NE¼ with a tolerance of 175'. (Order 7-67.)	Produced water disposed into Dakota formation. (Order 42-66.)

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
PENNEL					
Mission Canyon (Miss.)	8	Structural	Depletion-Water Drive	80-acre spacing units consisting of east and west half of quarter section; wells located in center of SE¼ and NW¼ of quarter sections with 150' topographic tolerance. (Order 15-61.)	Produced water is being injected into Dakota, Siluro-Ordovician and Madison formations. (Orders 16-60, 46-62, 68-62, 36-63, 13-64.) Waterflood for Siluro-Ordovician approved Nov. 1968. (Order 24-68.)
Siluro-Ordovician Oil & Gas	104	Structural	Depletion-Water Drive	80-acre spacing units on west side and 160-acre spacing units on east side of pool. Wells to be located in SE¼ and NW¼ of each quarter section (80 acres) and in SE¼ of each quarter section on 160-acre spacing. (Orders 1-56, 8-56, 15-61, 20-62, 4-63, 7-63.) Commingling approved. (Order 59-62.)	
PINE					
Mission Canyon (Miss.) Oil & Gas	4	Structural	Water Drive	Spacing and General Rules 213, 218 and 219 are waived within the Pine Unit. 80-acre spacing units outside of unit area; well location in NW¼ and SE¼ of quarter section; 150' topographic tolerance. (Order 37-62.) Gas through extraction plant.	A waterflood program for the south area was started in 1959. A waterflood of the north area was approved in 1967. (Orders 13-68, 1-60, 8-62, 32-67.)
Siluro-Ordovician Oil & Gas	103	Structural	Depletion-Water Drive		
PLEVNA					
Judith River (U. Cret.) Gas	20	Structural	Water Drive	1200' from legal subdivision line; 2400' from other wells on same lease or unit; 75' topographic tolerance. (Orders 34-54, 4-57.)	None
PONDERA					
Sun River (Miss.) Oil & Gas	255	Structural-Strat.	Depletion-Water Drive	Oil: 220' from legal subdivision, 430' from other wells in same reservoir on same lease; 75' topographic tolerance. Porter Bench Extension: 330' from legal subdivision line; 650' from other wells in same reservoir on same lease or unit; 75' topographic tolerance. (Order 9-54.) Gas: 1320' from legal subdivision; 3700' from other wells on same lease or unit; 75' topographic tolerance. (Order 9-54.) General Rules 207, 211, 219, 221, 223, and 224 do not apply.	Produced water injected into lower Madison. (Orders 11-56, 15-56, 4-65, 4-66, 20-A-71.) A small waterflood project has been in operation since 1959, using Madison water.
PONDERA COULEE					
Sun River (Miss.) (Shut-in)	4	Structural	Water Drive	330' from legal subdivision lines or upon a 10-acre spacing pattern; 75' topographic tolerance. (Order 5-62.)	None
POPLAR, EAST					
Madison (Miss.) (Charles & Mission Canyon fms.)	60	Structural	Water Drive	State-wide spacing; field delineated by (Order 7-55.)	Unitized in 1955. (Order 7-55.) Excess produced water has been injected into the Dakota and Judith River formations. (Orders 1-55, 5-57, 7-57, 14-61, 21-61, 34-61, 10-62, 51-67.)
Heath (Tyler) (Penn.)	3	Structural-Strat.	Water Drive		
Nisku (Dev.)	1	Structural	Water Drive		

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
POPLAR, NORTHWEST					
Charles (Miss.) ("C" or McGowan Zone)	2	Structural	Water Drive	80-acre spacing units consisting of E½ and W½ of each quarter section; permitted wells in NW¼ and SE¼ of quarter section. 75' topographic tolerance. (Order 18-55.)	None
PRAIRIE ELK					
Charles "C" (Miss.) (Shut-in)	1	Unknown	Water Drive	State-wide.	None
PRICHARD CREEK					
Sunburst (L. Cret.) Oil & Gas	2	Strat.	Depletion	State-wide.	None
(Shut-in)	4				
PUMPKIN CREEK					
Shannon (U. Cret.) Gas (Shut-in)	8	Structural-Strat.	Depletion	State-wide. Delineated. (Order 10-71.)	None
PUTNAM					
Interlake (Sil.)	1	Structural	Volumetric Water Drive	State-wide.	None. Gas to McCulloch Gas Processing Corp. Brorson Plant.
Red River (Ord.) (Shut-in)	1	Structural	Volumetric Water Drive		
RABBIT HILLS					
Sawtooth (Jur.)	1	Structural Strat.	Volumetric Water Drive	State-wide.	None
RAGGED POINT					
Tyler (Penn.)	11	Strat.	Depletion	40-acre spacing units; 75' topographic tolerance. (Order 8-59.) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to Unit boundary. (Order 35-65.)	A waterflood project of the Tyler "A" sand was commenced in February, 1966, using Third Cat Creek water. (Order 35-65.) Water disposal into Kibbey. (Order 19-65.)
Kibbey (Miss.)	1	Structural	Water Drive	State-wide spacing. (Order 15-54.) Commingling of production from Tyler and Kibbey permitted in one well per (Order 11-65.)	
RATTLESNAKE COULEE					
Sunburst (L. Cret.)	2	Strat.	Depletion	State-wide.	None
RAYMOND					
Nisku (Dev.)	1	Structural-Strat.	Depletion Water Drive	320-acre spacing units. Wells 660' from spacing unit boundary. (Order 38-72.)	None
Duperow (Dev.)	1				
Winnepegosis (Dev.)	2				
Red River (Ord.)	1				
REAGAN					
Sun River (Miss.) Oil	44	Structural	Gas Cap-Water Drive	State-wide. (Order 17-54.)	A pressure maintenance project utilizing gas injection was started in 1961. (Order 21-60.) Waterflood. (Order 27-72.)
(Shut-in)	19				
Gas	1				
REAGAN, WEST					
Blackleaf (U. Cret.) Gas	10	Strat.	Depletion	State-wide. Injected into Reagan field as secondary recovery agent.	None

Field, Formotian, Age		No. Prod. Wells	Type of Trop	Probable Drive Mechanism	Spacing Regulotions, Field Rules, ond Remorks	Secondary Recovery or Water Dispasal
RED CREEK						
Cut Bank (L. Cret.) Oil & Gas		7	Strat.	Depletion	40-acre spacing units; wells in center of spacing unit with 75' topographic or obstruction tolerance; spacing and field rules waived for unitized portion. (Orders 16-58, 73-62, 31-64, 5-70.)	Excess produced water injected into Bow Island and Madison. (Orders 22-63, 37-64.) A waterflood project in the Cut Bank sand was initiated in June, 1965, using Madison water.
	(Shut-in)	2				
Sun River (Miss.) Oil & Gas		12	Structural	Water Drive		
	(Shut-in)	9				
RED FOX						
Nisku (Dev.)		1	Structural	Water Drive	Field consists of one 160-ocre spacing unit which straddles the section line. (Order 20-67.)	None
REDSTONE						
Winnepegosis (Dev.)	(Shut-in)	1	Unknown	Water Drive	One well per 160-acre unit, but no closer than 660' from unit boundary.	None
REPEAT						
Red River (Ord.)		1	Unknown	Water Drive	State-wide.	None
RESERVE						
Winnipegosis (Dev.)	(Shut-in)	1	Structural-Strat.	Water Drive	160-acre spacing units; permitted well within 1320' square in center of quarter section. Commingling of Red River and Interlake production permitted on individual well basis. (Orders 34-66, 27-67.)	Excess water injected into Dakota sand. (Order 23-A-67.)
Interlake (Sil.)	(Shut-in)	1	Structural-Strat.	Water Drive		
Red River (Ord.)		4	Structural-Strat.	Water Drive		
	(Shut-in)	1				
RICHEY						
Charles (Miss.)		1	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections; well locations in center of NW¼ and SE¼ of each quarter section; 75' topographic tolerance. (Order 21-55.)	Part of produced water is being injected into the Dakota formation. (Orders 10-58, 19-61.)
RICHEY, SOUTHWEST						
Interlake, Dowson Bay (Sil.) (Dev.)		5	Structural	Depletion	160-acre spacing units; wells no closer than 900' from boundary of spacing unit. (Order 25-62.)	A waterflaad project in the Interlake and Dawson Bay was started in 1965. (Order 34-65.)
	(Shut-in)	1				
ROSCOE						
Lakota (L. Cret.)	(Shut-in)	1	Structural	Water Drive	State-wide.	None
ROUGH CREEK						
Muddy (L. Cret.)	(Shut-in)	1	Structural Strat.	Depletion	State-wide. Formerly called Duncan Creek.	None

Field, Formotion, Age	No. Prod. Wells	Type of Trop	Probable Drive Mechanism	Spocing Regulotions, Field Rules, and Remorks	Secondory Recovery or Water Disposal
RUDYARD					
Sawtooth (M. Jur.) Gas (Shut-in)	1	Structural	Volumetric	640-acre spacing units consisting of one section; well location in center of NW¼ of section with 75' topographic tolerance. (Order 2-58.)	None
RUSH MOUNTAIN					
Winnipegosis (M. Dev.) Red River (Ord.)	1	Structural	Volumetric-Water Drive	State-wide. Dual zone completion in discovery well.	Excess water injected into Dakota sand. (Order 5-A-71.)
SALT LAKE					
Bakken-Nisku (Miss.-Dev.)	3	Structural	Water Drive	State-wide.	None
SAND CREEK					
Interlake, Red River (Sil.) (Ord.) (Shut-in)	4 4	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Wells located in center of NW¼ and SE¼ of each quarter section. (Order 16-59.) Commingling of production from Interlake and Red River authorized per (Order 49-62.)	Excess produced water is injected into the Swift formation. (Order 9-61.)
SECOND CREEK					
Red River (Ord.)	1	Structural	Volumetric Water Drive	State-wide.	None
SHELBY AREA					
Sunburst (L. Cret.) Gas Swift (Jur.) Gas	33	Structural-Strat.	Depletion	State-wide. Field outline not delineated. A few small Swift sand wells commingled with Sunburst.	None
SHOTGUN CREEK					
Ratcliffe (Miss.) (Shut-in)	1	Structural	Water Drive	State-wide.	None
SIDNEY					
Mission Canyon (Miss.)	1	Structural	Water Drive	State-wide.	None
SNYDER					
Tensleep (Penn.)	4	Structural	Water Drive	10-acre spacing units with center 5-spot permitted; 150' topographic tolerance. (Order 45-62.)	None
SOAP CREEK					
Tensleep, Amsden, Madison (Penn.) (Penn.) (Miss.)	18	Structural	Water Drive	One well per 10-acre spacing unit per production formation; well location in center of spacing unit with 100' topographic tolerance. (Order 26-60.)	None
SPRING LAKE					
Nisku (Dev.) (Shut-in)	1	Structural	Depletion	One well per 160-acre spacing unit. Well location anywhere within 840' square in center of spacing unit. (Order 6-63.)	None
Red River (Ord.)	2	Structural	Depletion		

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
SQUAW COULEE (Now included as part of Tiger Ridge Field.) (Order 10-70.)					
STENSVAD					
Tyler (Penn.)	5	Strat.	Depletion	40-acre spacing units; well location in center of spacing unit with 200' tolerance. (Orders 2-59, 7-60.) Wells may be drilled anywhere within waterflood unit boundary, no closer than 660' from unit boundary. (Orders 5-65, Amended.)	A waterflood operation has been in progress since 1963, using Madison water. (Orders 48-67, 9-67.)
(Shut-in)	12				
SUMATRA					
Tyler (Penn.) Oil & Gas	73	Strat.	Depletion	40-acre spacing units; well located in center of unit with 75' tolerance. (Order 14-58.)	Four waterflood units using Madison water. (Orders 48-67, 6-69, 15-69, 19-69, 3-70.)
TIGER RIDGE					
Judith River (U. Cret.) Gas	6	Structural-Strat.	Depletion-Water Drive	State-wide, for part not unitized. Two units: (Order 11-72 and 41-72.) Wells 990' from unit boundary.	None
Eagle (U. Cret.) Gas	93	Structural-Strat.	Depletion-Water Drive	Originally one well per section within 2640' square in center of each unit and no closer than 1320' from boundary of unit. Changed to state-wide spacing by (Order 10-70.)	(Orders 17-67, 23-68, 10-70.)
(Shut-in)	26				
Sawtooth (Jur.) Oil (Shut-in)	1	Structural-Strat.	Water Drive	State-wide.	
TRAIL CREEK					
Sunburst (L. Cret.) Gas	2	Structural-Strat.	Water Drive-Depletion	One well per 320 acres consisting of S½ and N½ of each governmental section but no closer than 990' from spacing boundary. (Order 33-70.)	None
TULE CREEK					
Nisku (Dev.)	5	Structural	Water Drive	160-acre spacing units with permitted well anywhere within 1320' square in center of each unit. (Orders 26-62, 6-65, 11-67.)	Produced water injected into Dakota and Judith River formations. (Orders 12-66, 24-67.)
(Shut-in)	1				
TULE CREEK, EAST					
Nisku (Dev.)	2	Structural	Water Drive	160-acre spacing units with permitted well anywhere within 1320' square in center of each unit. (Orders 40-64, 6-65.)	Water injected into Judith River formation. (Order 13-68.)
TULE CREEK, SOUTH					
Nisku (Dev.)	3	Structural	Water Drive	160-acre spacing units with permitted well anywhere within a 1320' square in center of each unit.	Authority given to dispose of produced water into Dakota. (Order 44-64.) Into Judith River formation. (Order 29-67.)

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
UTOPIA					
Sawtooth (Jur.) Madison (Miss.)	4	Structural	Depletion Water Drive	State-wide.	None
VIDA					
Interlake (Sil.)	2	Structural	Water Drive	160-acre spacing units with permitted well anywhere within an 840' square in center of each unit. (Order 39-63.)	Water injected into Lakota formation. (Order 14-68.)
VOLT					
Nisku (Dev.)	4	Structural	Water Drive	160-acre spacing units with permitted well anywhere within a 1320' square in center of each unit. (Orders 27-64, 6-65, 32-65.)	Excess produced water is disposed into Judith River. (Order 3-65.)
(Shut-in)	2				
Charles "C" (Miss.)	1	Structural	Water Drive	State-wide.	
WEED CREEK					
Amsden (L. Penn.)	3	Structural	Water Drive	State-wide.	None
(Shut-in)	1				
WELDON					
Kibbey (Miss.)	3	Structural	Partial Water Drive	80-acre spacing unit; each quarter section divided into two separate units running in either a north-south or east-west direction; well location in center of NE¼ and SW¼ of quarter section with 200' topographic tolerance. (Order 9-65.)	Excess produced water is disposed into the Dakota, Lakota, Morrison, and Charles formations. (Orders 31-65, 47-65, 37-66, 16-67.)
(Shut-in)	9				
WEST BUTTE					
Sunburst (L. Cret.) Oil	1	Structural-Strat.	Depletion	State-wide, except W½ Section 16 is considered a single spacing unit.	None
Sawtooth (Jur.) Gas Madison (Miss.) Gas	1	Structural	Water Drive	Sawtooth-Madison gas commingled, unitized. (Order 5-72.) No well closer than 330' from unit boundary.	
WEST REAGAN					
(See Reagan, West)					
WHITLASH					
Bow Island, Kootenai, Swift (Cret.) (Jur.) Oil	35	Structural-Strat.	Volumetric	Gas: 300' from legal subdivision line and 2400' between wells, 75' topographic tolerance. Oil: 330' from legal subdivision line and 650' between wells; 5-spot location at center of 40-acre tract permitted; 75' topographic tolerance. General Rules 207, 211, 219, 221, 223, and 224 suspended. (Orders 16-54, 27-70.)	None
(Shut-in) Oil	12				
Gas	25				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
WHITLASH, WEST						
Sunburst, Swift (Cret.) (Jur.) Sawtooth (Jur.)	Oil Gas	1 9	Structural-Strat.	Volumetric	Gas: 160-acre spacing units consisting of quarter sections; well location anywhere within a 660' square in center of spacing unit. Oil: 330' from legal subdivision line, 650' between wells in same reservoir on same lease; 5-spot location permitted. (Orders 61-62, 22-65 as amended.)	None
WILLOW CREEK, NORTH						
Tyler (Penn.) Oil		2	Structural-Strat.	Depletion Water Drive	State-wide.	Pilotflood. (Order 19-72.)
WILLS CREEK, SOUTH						
Interlake (Sil.)		2	Structural	Partial Water Drive	160-acre spacing units. Well location in center of SE¼ of each unit with 175' topographic tolerance. (Orders 5-64, 30-66.)	None
WOLF SPRINGS						
Amsden (Penn.)	 (Shut-in)	3 5	Structural	Water Drive	80-acre spacing units consisting of N½ and S½ of each quarter section. Well location in center of NW¼ and SE¼ of each quarter section with 75' topographic tolerance. (Orders 4-56, 9-59.)	None
WOODROW						
Charles, Duperow, Interlake Red River (Ord.)	 (Shut-in)	1 1 4	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections; well locations in center of NE¼ and SW¼ of each quarter section with 200' topographic tolerance. (Order 47-62.)	Produced water injected into Dakota. (Order 48-62.)
WRIGHT CREEK						
Muddy (L. Cret.)	 (Shut-in)	5 1	Structural-Strat.	Depletion Water Drive	80-acre spacing consisting of N½ and S½ of quarter section with locations in NW¼ and SE¼ of each quarter section with 200' tolerance.	None

MONTANA
OIL AND GAS FIELDS, PIPELINES AND REFINERIES
1972

BOARD OF OIL AND GAS CONSERVATION

EXPLANATION

- OIL FIELD (MAPLE, HARDIN (N.P.) - Not Producing)
- GAS FIELD
- OIL PIPELINE
- GAS PIPELINE
- REFINERY ▲ GAS PLANT
- REFINED PRODUCTS PIPELINE - - - -
- BOUNDARY DIVIDING NORTHERN AND SOUTHERN DISTRICTS

★ Billings - Southern District & Technical Office
★ Shelby - Northern District Office
★ Helena - Administrative Office

LINCOLN FLATHEAD GLACIER TOOLE HILL BLAINE PHILLIPS VALLEY DANIELS SHERIDAN
SANDERS LAKE MINERAL MISSOULA POWELL LEWIS AND CLARK TETON PONDERA LIBERTY CHOUTEAU ROOSEVELT RICHLAND
RAVALLI GRANITE JEFFERSON BROADWATER LEWIS AND CLARK CASCADE FERGUS MC CONE DAWSON WIBAUX
BEAVERHEAD MADISON GALLATIN PARK SWEETGRASS MEAGHER JUDITH BASIN PETROLEUM GARFIELD PRAIRIE
DEER LODGE SILVER BOW STILLWATER GOLDEN VALLEY WHEATLAND MUSSELSHELL ROSEBUD TREASURE CUSTER FALLON
CARBON YELLOWSTONE BIG HORN POWDER RIVER CARTER

STATE OF MONTANA – SUMMARY OF PRODUCING OIL FIELDS – 1972

MONTANA BOARD OF OIL AND GAS CONSERVATION

LINE NO.	FIELD	COUNTY	PRODUCING FORMATION	YEAR OF DISCOVERY	DEPTH	GRAVITY °API	F.V.F	NET PAY FT.	POROSITY (%)	Sw (%)	O.O.I.P. (BBLS/ACRE)	PRODUCTIVE AREA 1-1-73 (ACRES)	O.O.I.P. (M BBLS.)	RECOVERY FACTOR (%) PRIMARY	RECOVERY FACTOR (%) SECONDARY	ULTIMATE RECOVERY (M BBLS.) PRIMARY	ULTIMATE RECOVERY (M BBLS.) SECONDARY	ULTIMATE RECOVERY (M BBLS.) TOTAL	CUMULATIVE PRODUCTION 1-1-73 (M BBLS.)	RESERVES 1-1-73 (M BBLS.)	1972 PRODUCTION (BBLS.)	1972 PRODUCTION (BOPD)	ULTIMATE RECOVERY (BBLS./ACRE)	ULTIMATE RECOVERY (BBLS./ACRE/FT.)	LINE NO.
1	Ash Creek	Big Horn	Shannon (U. Cret.)	1952	4,500	34	1.05	14	22	42	13,200	200	2,640	23	6	610	150	760	710	50	13,254	36	3,800	271	1
2	Bainville	Roosevelt	Red River (Ord.)	1969	10,300	45	1.75	38	15	34	16,680	320	5,340	6	--	300	--	300	231	69	33,536	92	940	25	2
3	Bears Den	Liberty	Sunburst (L. Cret.)	1924	2,300	39	1.08	20	12	35	11,210	200	2,240	20	--	450	--	450	374	76	11,151	30	2,250	113	3
4	Bell Creek	Powder River	Muddy (Cret.)	1967	4,400	36	1.11	10	26	23	13,990	16,000	223,840	26	26	58,000	58,000	116,000	51,392	64,608	6,275,874	17,147	7,250	725	4
5	Benrud	Roosevelt	Nisku (Dev.)	1961	7,700	43	1.41	22	16	30	13,560	80	1,090	21	--	230	--	230	191	39	16,192	44	2,880	131	5
6	Benrud, East	Roosevelt	Nisku (Dev.)	1962	7,500	46	1.37	22	15	30	13,080	320	4,190	68	--	2,850	--	2,850	1,482	1,368	151,549	414	8,910	405	6
7	Benrud, Northeast	Roosevelt	Nisku (Dev.)	1964	7,600	46	1.40	23	16	30	14,270	160	2,280	37	--	850	--	850	789	61	23,212	63	5,310	231	7
8	Big Wall	Musselshell	Amsden (Penn.)	1953	2,500	19	1.61	17	16	35	8,520	280	2,390	29	--	700	--	700	607	93	12,120	33	2,500	147	8
9	Big Wall	Musselshell	Tyler (Penn.)	1948	3,000	31	1.02	22	17	40	17,070	1,220	20,830	27	2	5,700	500	6,200	5,770	430	63,368	173	5,080	231	9
10	Blackfoot	Glacier	Madison (Miss.)	1955	3,600	25	1.15	8	14	40	4,530	480	2,170	36	--	780	--	1,200	997	203	19,812	54	1,630	204	10
11	Blackfoot	Glacier	Cut Bank (L. Cret.)	1955	3,500	30	1.11	15	15	35	10,220	160	1,640	26	--	420	--						2,630	175	11
12	Bowes	Blaine	Sawtooth (M. Jur.)	1949	3,300	19	1.02	37	12	31	23,300	3,760	87,610	9	2	7,000	1,600	8,600	7,643	957	115,391	315	2,290	62	12
13	Brorson	Richland	Madison (Miss.)	1954	9,600	32	1.40	40	5	40	6,650	1,120	7,450	11	--	800	--	800	629	171	42,403	116	710	18	13
14	Brorson	Richland	Red River (Ord.)	1968	12,600	48	1.70	20	10	35	5,930	1,440	8,540	23	--	2,000	--	2,000	1,494	506	123,838	338	1,390	70	14
15	Brorson, South	Richland	Red River (Ord.)	1968	12,600	48	1.70	20	12	30	7,670	480	3,680	24	--	900	--	900	678	222	79,666	218	1,880	94	15
16	Brush Lake	Sheridan	Red River (Ord.)	1969	11,400	40	1.50	30	14	35	14,120	2,240	31,630	8	--	2,450	--	2,450	1,094	1,356	261,820	715	1,090	36	16
17	Burns Creek	Dawson	Red River (Ord.)	1972	11,400	39	1.25	14	14	40	7,300	320	2,340	11	--	250	--	250	54	196	54,414	149	780	56	17
18	Cabin Creek	Fallon	Siluro-Ordovician	1953	9,000	33	1.20	50	13	30	29,420	7,620	224,180	23	15	51,000	34,000	85,000	50,565	34,435	2,479,214	6,774	11,160	223	18
19	Cabin Creek	Fallon	Mission Canyon (Miss.)	1956	7,300	33	1.13	25	11	30	13,220	2,260	29,880	50	--	15,500	--	15,500	11,945	3,555	707,966	1,934	6,860	274	19
20	Canal	Richland	Red River (Ord.)	1970	12,700	47	2.07	58	8	40	10,430	320	3,340	18	--	600	--	600	265	335	82,631	226	1,880	32	20
21	Cat Creek (West Dome)	Petroleum	Kootenai (L. Cret.)	1920	1,100	52	1.10	51	21	19	61,180	900	55,000	27	5	14,600	3,000	17,600	17,078	522	115,929	317	19,560	384	21
22	Cat Creek (Antelope Dome)	Garfield	Kootenai (L. Cret.)	1920	1,200	52	1.10	10	21	19	12,000	200	2,400	21	8	500	200						3,500	350	22
23	Cat Creek	Petroleum, Garfield	Morrison (U. Jur.)	1945	1,600	52	1.10	6	22	40	5,590	240	1,340	30	--	400	--	5,600	4,888	712	72,886	199	1,670	278	23
24	Cat Creek	Petroleum, Garfield	Ellis (U. Jur.)	1945	1,800	52	1.10	25	18	40	19,040	880	16,760	26	1	4,400	100						5,110	204	24
25	Cat Creek	Petroleum	Amsden (Penn.)	1967	2,000	52	1.00	10	8	30	4,340	80	350	17	11	60	40	100	42	58	5,933	16	1,250	125	25
26	Clark's Fork, South	Carbon	Greybull (L. Cret.)	1969	7,800	54	1.30	10	13	35	5,040	160	810	7	--	60	--	60	42	18	4,230	12	375	38	26
27	Cow Creek	McCone	Charles (Miss.)	1969	6,800	40	1.20	25	8	48	6,720	240	1,610	7	--	100	--	100	76	24	13,960	38	420	17	27
28	Cow Creek, East	McCone	Kibbey (Miss.)	1971	6,300	35	1.05	15	15	35	10,810	400	4,320	23	--	1,000	--	1,000	386	614	366,819	1,002	2,500	167	28
29	Culbertson	Roosevelt	Red River (Ord.)	1969	11,900	48	1.80	20	12	16	8,690	320	2,780	7	--	200	--	200	128	72	11,419	31	630	32	29
30	Cupton	Fallon	Red River (Ord.)	1955	9,600	38	1.25	40	12	30	20,850	1,280	26,690	6	--	1,500	--	1,500	616	884	121,284	331	1,170	29	30
31	Cut Bank	Glacier, Toole, Pondera	Kootenai (L. Cret.)	1932	2,900	31	1.09	18	15	35	12,490	49,000	612,000	20	12	125,000	75,000	200,000	127,733	72,267	4,669,512	12,758	4,080	227	31
32	Cut Bank	Glacier, Toole	Madison (Miss.)	1945	3,000	34	1.10	10	14	30	6,910	3,200	22,110	32	--	7,000	--	7,000	6,155	845	88,985	243	2,190	219	32
33	Deer Creek	Dawson	Interlake (Sil.)	1956	9,400	43	1.20	38	7	30	12,040	320	3,850	34	--	1,300	--	1,300	1,154	146	14,695	40	4,060	107	33
34	Dwyer	Sheridan	Ratcliffe (Miss.)	1960	8,000	37	1.32	38	11	56	10,810	3,840	41,510	11	4	4,500	1,500	6,000	5,008	992	215,100	588	1,560	41	34
35	Elk Basin	Carbon	Frontier (U. Cret.)	1915	1,200	45	1.16	30	21	20	33,710	120	4,050	37	30	1,500	1,200	2,700	1,415	1,285	25,640	70	22,500	750	35
36	Elk Basin	Carbon	Tensleep (Penn.)	1942	5,000	29	1.16	124	11	10	82,100	1,400	114,940	--	50	--	58,000	58,000	48,529	9,471	1,033,393	2,823	41,430	334	36
37	Elk Basin	Carbon	Madison (Miss.)	1942	5,300	28	1.12	224	12	9	169,430	920	155,860	9	6	14,000	9,000	23,000	15,641	7,359	523,618	1,431	25,000	112	37
38	Elk Basin, Northwest	Carbon	Madison (Miss.)	1947	6,200	35	1.08	124	12	35	69,480	200	13,900	7	--	950	--	950	910	40	8,359	23	4,750	38	38
39	Elk Basin, Northwest	Carbon	Tensleep (Penn.)	1964	6,000	37	1.15	27	12	22	17,050	580	9,890	10	3	1,000	300	1,300	1,098	202	36,823	101	2,240	83	39
40	Fairview	Richland	Winnipegosis (Dev.)	1967	11,500	43	1.10	27	7	30	9,330	160	1,490	17	--	260	--	260	216	44	15,449	42	1,630	60	40
41	Fairview	Richland	Red River (Ord.)	1965	12,700	47	1.70	35	11	28	12,650	1,920	24,290	17	8	4,200	2,000	6,200	3,527	2,673	395,786	1,081	3,230	92	41
42	Fertile Prairie	Fallon	Red River (Ord.)	1952	9,300	29	1.20	6	14	27	3,960	400	1,580	32	--	500	--	500	350	150	15,085	41	1,250	208	42
43	Flat Coulee	Liberty	Swift (U. Jur.)	1933	2,900	37	1.10	18	21	35	17,330	1,280	22,180	13	11	2,800	2,400	5,200	2,348	2,852	75,955	208	4,060	226	43
44	Flat Lake	Sheridan	Ratcliffe (Miss.)	1964	6,500	33	1.26	14	15	45	7,110	9,600	68,260	14	5	9,300	3,500	12,800	7,172	5,628	578,933	1,582	1,330	95	44
45	Flat Lake, South	Sheridan	Ratcliffe (Miss.)	1966	6,500	32	1.26	9	12	45	3,660	1,120	4,100	24	--	1,000	--	1,000	604	396	98,585	269	890	99	45
46	Fort Gilbert	Sheridan	Red River (Ord.)	1970	12,500	48	1.89	68	12	20	26,800	640	17,150	8	--	1,300	--	1,300	552	748	268,345	733	2,030	30	46
47	Frannie	Carbon	Tensleep (Penn.)	1928	2,700	27	1.02	29	19	16	35,200	80	2,820	27	--	750	--	750	658	92	18,304	50	9,380	494	47
48	Fred & George Creek	Toole	Sunburst (L. Cret.)	1963	2,600	39	1.20	31	27	30	37,880	880	33,330	23	20	7,700	6,700	14,400	7,170	7,230	404,865	1,106	16,360	528	48
49	Fred & George Creek	Toole	Swift (U. Jur.)	1963	2,700	39	1.10	8	14	30	5,530	840	4,650	26	--	1,200	--	1,200	954	246	29,011	79	1,430	179	49
50	Froid, South	Roosevelt	Red River (Ord.)	1970	12,100	48	1.55	12	17	25	7,660	160	1,230	16	--	200	--	200	120	80	15,676	43	1,250	104	50
51	Gas City	Dawson	Red River (Ord.)	1955	8,900	38	1.28	25	12	35	11,820	2,800	33,100	26	5	8,600	1,600	10,200	7,615	2,585	269,982	738	3,640	146	51
52	Girard	Richland	Red River (Ord.)	1969	11,900	46	1.15	18	15	40	10,930	320	3,500	11	--	400	--	400	259	141	31,881	87	1,250	69	52
53	Glendive	Dawson	Red River (Ord.)	1952	8,900	38	1.25	147	8	35	47,440	1,280	60,720	23	--	13,700	--	13,700	9,433	4,267	311,586	851	10,700	73	53
54	Goose Lake	Sheridan	Ratcliffe (Miss.)	1962	7,000	34	1.20	40	16	55	18,620	6,240	116,190	7	--	7,850	--	7,850	5,269	2,581	380,675	1,040	1,260	32	54
55	Graben Coulee	Glacier	Sunburst, Cut Bank, Madison	1961	2,900	34	1.10	15	12	30	8,890	760	6,760	15	--	1,000	--	1,000	862	138	45,729	125	1,320	88	55
56	Hay Creek	Richland	Red River (Ord.)	1969	12,600	46	1.90	53	12	25	19,480	640	12,470	12	--	1,500	--	1,500	633	867	116,018	317	2,340	44	56
57	Hay Creek	Richland	Mission Canyon (Miss.)	1969	9,600	39	1.15	40	5	30	9,440	160	1,510	13	--	200	--	200	96	104	16,176	44	1,250	31	57
58	Hiawatha	Musselshell	Tyler (L. Penn.)	1967	5,000	33	1.15	34	12	30	19,270	360	6,940	22	--	1,500	--	1,500	953	547	77,858	213	4,170	123	58
59	Ivanhoe	Musselshell	Tyler (L. Penn.)	1956	4,100	33	1.08	29	15	20	25,000	600	15,000	27	--	4,000	--	4,000	3,688	312	48,881	134	6,670	230	59
60	Jim Coulee	Musselshell	Tyler (L. Penn.)	1971	3,700	33	1.10	37	15	33	26,230	680	17,840	20	10	3,600	1,800	5,400	610	4,790	529,071	1,446	7,940	215	60
61	Keg Coulee	Musselshell	Tyler (L. Penn.)	1960	4,600	33	1.15	19	14	32	12,200	1,600	19,520	17	14	3,400	2,700	6,100	3,877	2,223	179,839	491	3,820	201	61
62	Kelley	Musselshell	Tyler (L. Penn.)	1966	4,400	33	1.15	50	13	30	30,690	200	6,140	8	4	500	250	750	621	129	85,876	235	3,750	75	62
63	Kevin-Sunburst	Toole	Madison-Sunburst (Miss.-L.Cret.)	1922	1,500	32	1.08	7	20	35	6,540	40,200	262,910	27	4	70,000	10,000	80,000	70,679	9,321	281,261	768	1,990	284	63
64	Laird Creek	Liberty	Swift (U. Jur.)	1968	2,800	39	1.10	14	16	25	11,850	480	5,690	12	--	700	--	700	339	361	35,533	97	1,460	104	64
65	Leary	Powder River	Muddy (Cret.)	1969	5,800	41	1.15	7	17	33	5,380	240	1,290	16	--	200	--	200	120	80	40,418	110	830	119	65
66	Little Beaver	Fallon	Red River (Ord.)	1952	8,300	29	1.40	37	12	35	15,990	2,390	38,220	17	10	6,500	4,000	10,500	5,780	4,720	442,569	1,209	4,390	119	66
67	Little Beaver, East	Fallon	Red River (Ord.)	1954	8,300	30	1.50	24	13	35	10,490	1,600	16,780	23	12	3,900	2,000	5,900	3,473	2,427	155,246	424	3,690	154	67
68	Little Wall Creek	Musselshell	Tyler (L. Penn.)	1970	3,700	33	1.10	40	15	33	28,350	40	1,130	18	--	200	--	200	90	110	37,053	101	5,000	125	68
69	Lonetree Creek	Richland	Red River (Ord.)	1970	12,500	47	1.86	19	11	30	6,100	1,920	11,710	26	--	3,000	--	3,000	923	2,077	417,126	1,140	1,560	60	69
70	Lookout Butte	Fallon	Red River (Ord.)	1961	8,900	33	1.15	15	15	25	11,380	6,100	69,420	19	12	13,000	8,000	21,000	13,210	7,790	673,068	1,839	3,440	229	70
71	Lookout Butte	Fallon	Mission Canyon-Lodgepole (Miss.)	1966	8,000	26	1.13	26	10	35	11,600	1,920	22,270	7	--	1,600	--	1,600	1,311	289	49,673	136	830	32	71
72	Melstone	Musselshell	Tyler (Penn.)	1948	4,300	34	1.09	25	15	30	18,680	360	6,720	25	--	1,700	--	1,700	1,614	86	23,077	63	4,720	189	72
73	Monarch	Fallon	Siluro-Ordovician	1958	8,400	32	1.10	31	7	35	9,950	2,240	22,290	22	--	4,900	--	4,900	3,107	1,793	184,590	504	2,190	71	73
74	Nohly	Richland	Red River (Ord.)	1972	12,900	46	1.43	27	10	40	8,790	320	2,810	18	--	500	--	500	155	345	155,086	428	1,560	52	74
75	Otis Creek	Richland	Red River (Ord.)	1970	12,700	48	1.78	23	12	35	7,820	640	5,000	10	--	500	--	500	162	338	52,739	144	780	34	75
76	Outlook	Sheridan	Siluro-Devonian	1956	9,000	38	1.12	20	8	30	7,760	1,600	12,420	46	--	5,700	--	5,700	4,992	708	132,656	362	3,560	178	76
77	Outlook	Sheridan	Duperow (Dev.)	1964	8,200	39	1.50	15	10	25	5,820	640	3,720	27	--	1,000	--	1,000	805	195	46,583	127	1,560	104	77
78	Outlook	Sheridan	Winnipegosis (Dev.)	1971	9,000	39	1.12	18	8	30	6,980	160	1,120	3	--	35	--	35	35	--	9,512	26	220	12	78
79	Outlook, South	Sheridan	Winnipegosis (Dev.)	1957	9,100	39	1.12	18	8	30	6,980	240	1,680	19	--	320	--	320	298	22	5,812	16	1,330	74	79
80	Outlook, West	Sheridan	Winnipegosis (Dev.)	1958	9,100	39	1.12	16	8	30	6,210	320	1,990	30	--	600	--	600	447	153	27,622	75	1,880	118	80
81	Pennel	Fallon	Siluro-Ordovician	1955	8,800	33	1.14	25	11	35	12,160	22,380	272,140	11	8	31,000	21,800						2,360	94	81
82	Pennel	Fallon	Mission Canyon (Miss.)	1957	7,000	31	1.10	38	3	30	5,630	720	4,050	17	--	700	--	54,200	25,099	29,101	1,948,212	5,323	970	26	82
83	Pennel	Fallon	Lodgepole (Miss.)	1960	7,500	36	1.13	30	8	35	10,710	320	3,430	20	--	700	--						2,190	73	83
84	Pine	Dawson, Wibaux, Fallon, Prairie	Siluro-Ordovician	1952	8,400	34	1.17	32	12	30	17,820	13,320	237,360	24	17	57,000	40,000	97,000	72,796	24,204	2,827,330	7,725	7,280	228	84
85	Pondera	Pondera, Teton	Madison (Miss.)	1927	2,100	34	1.20	15	16	31	10,710	5,560	59,550	39	--	23,000	--	23,000	19,451	3,549	273,749	748	4,140	276	85
86	Poplar	Roosevelt	Madison (Miss.)	1952	5,500	40	1.10	25	11	30	13,580	18,070	245,390	18	--	45,000	--	45,000	39,884	5,116	498,278	1,361	2,490	100	86
87	Poplar	Roosevelt	Heath (Penn.)	1969	4,900	38	1.10	8	11	50	3,100	480	1,490	20	--	300	--	300	174	126	23,595	64	630	79	87
88	Poplar	Roosevelt	Nisku (Dev.)	1969	7,300	42	1.40	12	8	50	2,660	320	850	24	--	200	--	200	153	47	16,172	44	630	53	88
89	Poplar, Northwest	Roosevelt	Madison (Miss.)	1952	6,300	40	1.10	16	10	45	6,210	400	2,480	22	--	550	--	550	468	82	11,322	31	1,380	86	89
90	Putnam	Richland	Siluro-Ordovician	1969	11,900	41	1.75	16	9	30	4,470	320	1,430	35	--	500	--	500	300	200	76,317	209	1,560	98	90
91	Rabbit Hills	Blaine	Sawtooth (Jur.)	1972	4,000	21	1.15	12	18	16	12,240	120	1,470	20	--	300	--	300	7	293	6,592	18	2,500	208	91
92	Ragged Point	Musselshell	Tyler (L. Penn.)	1956	3,600	32	1.11	13	14	32	8,650	680	5,880	21	20	1,250	1,150	2,300	1,698	602	61,175	167	3,380	260	92
93	Raymond	Sheridan	Nisku (Dev.)	1972	7,900	50	1.40	22	8	50	4,880	160	780	38	--	300	--	300	37	263	36,824	101	1,880	85	93
94	Raymond	Sheridan	Duperow (Dev.)	1972	8,400	46	1.50	19	13	29	9,070	160	1,450	34	--	500	--	500	44	456	44,102	120	3,130	165	94
95	Raymond	Sheridan	Winnipegosis (Dev.)	1972	9,300	42	1.17	40	5	10	11,940	320	3,820	21	--	800	--	800	125	675	124,506	340	2,500	63	95
96	Raymond	Sheridan	Red River (Ord.)	1972	10,000	39	1.42	33	12	27	15,790	160	2,530	20	--	500	--	500	72	428	72,294	198	3,130	95	96
97	Reagan	Glacier	Madison (Miss.)	1947	3,700	38	1.10	11	12	30	6,520	2,520	16,430	33	9	5,400	1,400	6,800	5,308	1,492	212,167	580	2,700	245	97
98	Red Creek	Glacier	Cut Bank (L. Cret.)	1958	2,600	31	1.08	20	19	30	19,110	770	14,710	15	3	2,250	450	2,700	1,853	847	60,649	166	3,510	176	98
99	Red Creek	Glacier	Madison (Miss.)	1958	2,800	28	1.10	32	13	30	20,540	640	13,150	27	--	3,500	--	3,500	2,564	936	105,181	287	5,470	171	99
100	Redstone	Sheridan	Winnipegosis (Dev.)	1958	9,400	42	1.10	34	8	30	13,430	160	2,150	21	--	450	--	450	355	95	18,243	50	2,810	83	100
101	Repeat	Carter	Red River (Ord.)	1956	8,600	23	1.02	25	10	30	13,310	160	2,130	21	--	450	--	450	383	67	15,823	43	2,810	112	101
102	Reserve	Sheridan	Winnipegosis (Dev.)	1967	10,200	45	1.17	7	8	30	2,600	480	1,250	48	--	600	--	600	470	130	4,106	11	1,250	179	102
103	Reserve	Sheridan	Red River (Ord.)	1966	11,100	39	1.30	18	6	30	4,510	960	4,330	16	--	700	--	700	480	220	77,773	212	730	41	103
104	Richey, Southwest	McCone	Siluro-Devonian	1952	9,200	48	1.37	27	9	30	9,630	1,160	11,170	15	1	1,700	150	1,850	1,782	68	22,431	61	1,590	59	104
105	Rush Mountain	Sheridan	Red River (Ord.)	1968	12,000	39	1.62	14	10	33	4,490	320	1,440	28	--	400	--	400	200	200	30,435	83	1,250	89	105
106	Salt Lake	Sheridan	Nisku (Dev.)	1970	7,900	43	1.50	23	11	35	8,510	480	4,080	9	--	350	--	350	96	254	45,555	124	730	32	106
107	Sand Creek	Dawson	Red River (Ord.)	1959	9,000	39	1.30	25	10	40	8,950	880	7,880	28	--	2,200	--	2,200	2,018	182	38,932	106	2,500	100	107
108	Second Creek	Richland	Red River (Ord.)	1972	12,700	46	1.50	30	7	40	6,520	320	2,090	19	--	400	--	400	4	396	3,571	10	1,250	42	108
109	Soap Creek	Big Horn	Tensleep-Amsden-Madison	1952	1,900	20	1.05	20	15	35	14,410	600	8,650	24	--	2,100	--	2,100	1,700	400	48,344	132	3,500	175	109
110	Spring Lake	Richland	Red River (Ord.)	1963	11,700	51	2.00	9	12	30	2,930	900	2,640	27	--	700	--	700	562	138	23,704	65	780	87	110
111	Stensvad	Musselshell, Rosebud	Tyler (Penn.)	1958	5,500	33	1.17	25	14	20	18,570	1,380	25,630	26	15	6,700	3,800	10,500	9,035	1,465	304,233	831	7,610	304	111
112	Sumatra	Rosebud	Tyler (Penn.)	1949	4,500	32	1.16	30	19	35	24,780	4,240	105,070	25	12	26,000	13,000	39,000	25,602	13,398	1,105,179	3,020	9,200	307	112
113	Tule Creek	Roosevelt	Nisku (Dev.)	1960	7,500	46	1.41	25	15	30	14,440	1,160	16,750	54	--	9,000	--	9,000	6,112	2,888	266,998	730	7,760	310	113
114	Tule Creek, East	Roosevelt	Nisku (Dev.)	1964	7,500	43	1.91	30	18	30	15,350	400	6,140	36	--	2,200	--	2,200	1,763	437	89,413	244	5,500	183	114
115	Tule Creek, South	Roosevelt	Nisku (Dev.)	1964	7,600	43	1.40	8	12	30	3,720	400	1,490	44	--	650	--	650	547	103	32,401	89	1,630	204	115
116	Vida	McCone, Dawson	Interlake (Sil.)	1963	9,300	51	1.40	33	2	56	1,610	320	520	58	--	300	--	300	234	66	12,676	35	940	28	116
117	Volt	Roosevelt	Nisku (Dev.)	1964	7,300	47	1.40	14	20	30	10,860	800	8,690	25	--	2,200	--	2,200	1,504	696	133,281	364	2,750	196	117
118	Weed Creek	Yellowstone	Amsden (L. Penn.)	1966	6,200	35	1.07	12	8	23	5,360	640	3,430	17	--	600	--	600	533	67	16,976	46	940	78	118
119	Weldon	McCone	Kibbey (U. Miss.)	1964	5,900	39	1.01	14	16	35	11,180	1,560	17,440	40	--	7,000	--	7,000	6,710	290	108,212	296	4,490	321	119
120	West Butte	Toole	Sunburst (Cret.)	1968	2,300	40	1.10	10	24	23	13,030	40	520	38	--	200	--	200	149	51	20,052	55	5,000	500	120
121	Whitlash	Liberty	Swift-Sunburst (Jur.-Cret.)	1927	2,600	38	1.13	15	16	20	13,180	1,920	25,310	16	--	4,000	--	4,000	3,180	820	122,527	335	2,080	139	121
122	Willow Creek, North	Musselshell	Tyler (Penn.)	1970	4,000	32	1.20	12	13	54	4,640	160	740	34	--	250	--	250	161	89	25,699	70	1,560	130	122
123	Wills Creek, South	Fallon	Silurian	1964	8,700	33	1.20	12	18	35	9,080	320	2,910	29	--	850	--	850	617	233	32,441	89	2,660	222	123
124	Wolf Springs	Yellowstone	Amsden (L. Penn.)	1955	6,200	30	1.07	11	6	23	3,680	3,840	14,130	32	--	4,500	--	4,500	4,429	71	29,893	82	1,170	107	124
125	Woodrow	Dawson	Charles, Devonian (Sil.-Ord.)	1952	9,600	42	1.30	25	14	35	13,580	480	6,520	15	--	1,000	--	1,000	867	133	23,245	64	2,080	83	125
126	Wright Creek	Powder River	Muddy (Cret.)	1969	4,800	35	1.10	5	26	48	4,770	480	2,290	9	--	200	--	200	137	63	16,118	44	420	84	126
127	Miscellaneous																			811	162,227	368			127
																				366,127	33,904,139	92,634			

GENERALIZED STRATIGRAPHIC CORRELATION CHART

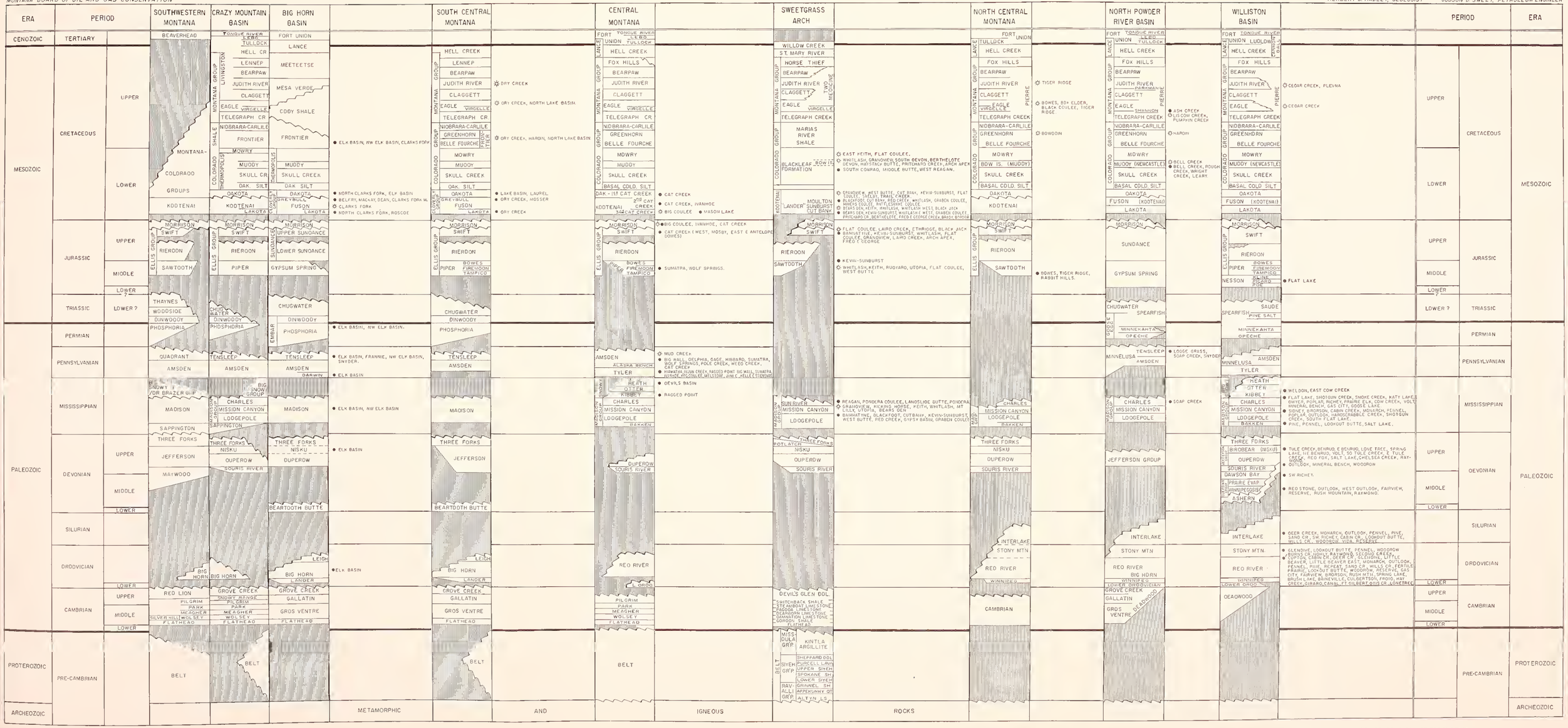
SHOWING PRODUCTIVE FORMATIONS IN MONTANA OIL AND GAS FIELDS *

• OIL ☼ GAS

1972

MONTANA BOARD OF OIL AND GAS CONSERVATION

HERBERT D. HADLEY, GEOLOGIST JUDSON D. SWEET, PETROLEUM ENGINEER



* SOME FIELDS SHOWN ARE DEPLETED OR NOT PRODUCTIVE